

Kennel Service Kit

RL Brews

243-1144

James Electric

252-5477

Batis Electric

409 8 Ave N.E.

276-9544

Akx

286-0133

CAN 750

KURZWEIL

Music Systems

Attention: Keyboard Managers and Service Personnel!

KURZWEIL SERVICE KIT

January 2003

Please take the time to read this material and keep it for future use. There are several policy and procedure changes along with improvements to this document from the 2002 version. Please take the time to familiarize yourself with the whole document.

If you have suggestions for improving this document or want to request an E-copy, please contact the Kurzweil Service Document Department by email at:

newsletter@yca.tzo.com.

Discard all previous versions.

KSK January 2003

Parts
303

303

(Dickerson)

360

432-1080 Duane

Samrek JR 143 for Parts

626 964-4700

253 770-7678 Duane

2766

500 874-2880

Wor.

AND

566 778-6979 ext 233 Parts

253 589-3580

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Introduction to the Kurzweil Service Kit (KSK)

Thank you for taking the time to read this introduction to the second edition of the Kurzweil Service Kit (KSK). The KSK provides procedural methods for daily business with us and has many easy-to-use forms and helpful information. This kit is easily updated because each form or data sheet has a Kurzweil Service Document (KSD) number and is dated. When we send out updates you will only need to replace that sheet. Please place this in a binder for future and continued use. Refer to the table of contents to find the listed items.

This documentation packet is sent to you to accomplish a few things:

- a. Using the attached documents will **provide time saving methods** of daily business procedures that do not require phone conversations. **We want to promote the use of email (you may request the e-copy of this packet by email) and fax order forms** that **gather all the information** we need to process requests. These forms also allow you the choice of **various ways of confirmation**.
- b. **Written communications** can eliminate communication breakdowns and lead to solutions quicker than verbal communications. In other words, if you put it in writing and we don't clarify our questions or get it wrong – **we own the problem**. It is then our responsibility to fix the problem. **Good descriptions and serial numbers** will ensure good communications.
- c. **Using this packet will ultimately simplify and clarify telephone communications.**

Service Center Approach to the KSK

Service center proprietors, managers and technicians that deal with Kurzweil should take the time to know this document. It will reduce the time it takes to work with us in resolving problems. If you have junior staff that will be contacting us it would help if they were familiar with the KSK as well.

If you follow the instructions provided for each form in this Kit it is very simple to accomplish requests for service by email or fax (depending on the version of the form you have) and receive confirmation by your requested method. Service centers can use the information in this Kit to:

- a. **Request parts and accessories** using the procedures and form on pages 3A and 3B of this document.
- b. **Request return authorizations (RA) and replacements of UNITS (not parts)** using the procedures and form on pages 6A and 6B of this document.
- c. **Request printed circuit boards (PCB)** using the procedures and form on pages 5A and 5B also KTD 1B and KTD 2B of this document depending on the level of maintenance your dealership can do.
- d. **Verify warranty information and make claims** using the procedures and form on pages 2A through 2E of this document. The warranty claim form in this Kit can be used in lieu of the triplicate form we normally have used in the past.

PLEASE REMEMBER! Service problems *should* first go to local service centers. **You would help us greatly by contacting your local Kurzweil dealerships** (in particular chain stores) to remind them of Kurzweil service methods: dealer to service center NOT direct to manufacturer. Hopefully, this will foster a closer local business relationship. We NEED service centers to provide positive contact to end-users. We need to reduce direct calls from end-users so we can better serve you.

*A copy of the KSK in .pdf form and individual loose forms in MSWORD.doc format can be obtained by emailing a request to Newsletter@yca.tzo.com. This makes it easy to store the KSK and modify form headers for later use.

Kurzweil Service Contact Information

David Watkins *Service Manager* **ext: 109**

service_manager@yca.tzo.com

Oversees the Service Department of Kurzweil Music Systems.

Duane Garvin *Senior Hardware Technician* **ext: 104**

tech@yca.tzo.com

Oversees our Tech-room operations, also repairs Mark Units and RG series units.

Ray Heimbecker *Hardware Technician* **ext: 135**

tech@yca.tzo.com

Handles repairs for K2000, PC88, and PC2 units.

Tony Van Kirk *Hardware Technician* **ext: 138**

tech@yca.tzo.com

Handles repairs for K2500, K2600, and SP Series units.

Cynthia Sieler *Production Control* **ext: 103**

production@yca.tzo.com

Moderates the incoming and outgoing of repairs, PCB orders, and writes all return authorizations. Handles parts orders for Sweetwater, Sam Ash, and West LA.

Pamela Woods *Warranties* **ext: 106**

support@yca.tzo.com

Coordinates warranty claims for Kurzweil and Young Chang products. Handles service center coordination.

Connie McAllister *Parts* **ext: 111**

parts@yca.tzo.com

Processes literature requests and parts orders, except for PCB's.

Operational Support:

Jean Bellefeuille

253-589-3200 xt.237

Jean_bellefeuille@yca.tzo.com

West Coast Operational Support

Denis Brunelle

781-684-1385

support@kurzweilmusicsystems.com

East Coast Operational Support

Kurzweil Warranty Quick Reference

Warranty periods:

New Pro Products: one-year parts and labor warranty from the date of purchase by the end-user.

Reconditioned Pro Products: all reconditioned Professional products have a 90-day warranty on parts and labor from the date of purchase by the end-user.

New Home Products: 2 years labor, 3 years parts

Reconditioned Home Products: reconditioned Home products sold after August 1, 2001 have a limited 1-year parts and labor warranty on electronic parts and key action parts from the date of purchase by the end-user. In June 2001, a memo was mistakenly sent out declaring a 3-year warranty on reconditioned home product. That memo should have said 1-year only. Prior to August 1, 2001 reconditioned Home Product have a 1-year warranty.

Store Stock Warranty: Home and Pro units purchased on or after February 1, 2002 will have a store stock warranty equal to the customer purchase warranty. **Example:** new professional products have a 1-year parts and labor warranty for customers that purchase the item from the dealer - the store that sold the unit must sell that product within 1 year to obtain Young Chang, Kurzweil financial support for warranty repair on that unit.

Product Summary:

Pro products include: All series: K2000, K2500, K2600, K2661, PC88, PC2, SP76/88, DMTI, KMP-1, ME-1, KME-61, KSP8, Rumour and Mangler.

Home products include: Mark series, LE-1 (Troubadour), KHP-101, and RG series.

Smooth Claims hints:

- **Use KSD 2D Warranty Reimbursement Form AND KSD 2E Quality Deficiency Report Form - by email or Fax.**
- **Use Purchase Orders** – they give a reference for research later. The date of the order and initials is an often-used method.
- **Always obtain RA numbers for returning parts.**
- **Always submit serial numbers** – they provide critical information.
- **Always submit dates of purchase.**
- **Please provide technical details** – PCB component repair details useful to engineers in quality control and improvements.
- **Keep your account current** – makes payment much faster.
- **Warranty freight is sent by ground ONLY!** Claims can be held up when those expenses are passed on without prior authorization.

Kurzweil Warranty Reimbursement Information

The Reimbursement Rates:

- \$50.00/hour for labor on repair.
- .26cents/mile for travel UNDER 60 miles OR \$25.00/hour for travel OVER 60 miles.

Note: For all travel over 3 hours in one direction you MUST call and receive special authorization. Travel reimbursement is paid only in the case of Home products.

- If a repair looks as if the labor will take longer than 3 hours, you need to obtain a special authorization from the Warranty Coordinator.

To expedite your payment please observe the following procedures:

- Completely fill out the Kurzweil Warranty Reimbursement claim form (KSD 2D) and Kurzweil Quality Deficiency Report Form (KSD 2E). If these forms are missing information you will be contacted for clarification.
- **Note:** you *MUST* obtain the complete serial number directly from the unit! (Most serial numbers are 12-digits but there are some that start with a K, and older models before 1995 may vary). **Do not** take the serial number from receipts, or service paper work.
- As a rule, warranty parts are reimbursed when the defective parts are received on a valid RA# (Return Authorization Number) or claimed on a Warranty Reimbursement Form. When you place your parts order, make sure you specify which items are for warranty repair. The only exception to this rule, involves parts taken directly from your stock. If this is the case, you must state that store stock parts were used, and provide a sales order number from your original purchase of these items. **Items not purchased from AND Music Corp will NOT be paid in currency.** Instead, parts will be reimbursed from AND Music inventory.
- **ALL RETURNED PARTS MUST HAVE AN RA#.**

For PCB returns, call (800) 874-2880 x 103 or email at production@yca.tzo.com

For all other part returns, call (800) 874-2880 x106 or email at support@yca.tzo.com

NOTE: without a valid RA# - no return shipping charges will be paid. Please add the cost of shipping to your warranty reimbursement form, we will reimburse for ground shipping only.

ABUSE ISSUES: any damage that does not occur from normal wear-and-tear is not coverable under warranty. It is the responsibility of the service center to identify abuse issues. Claims that are deemed to have abuse issues will be questioned and reimbursement withheld.

For warranty period information please see KSD 2A - Warranty Quick Reference. Please, discard away all previous versions.

Store Stock Warranty

The following policy was implemented on February 1, 2001. Units purchased from Young Chang America or A N D Music Corp on or after that date fall under this policy. The term "store stock" in this policy refers to any units purchased after that said date that have not yet been sold by the purchasing dealership.

Kurzweil's policy on reimbursement for repairs to "store-stock" units follows:

1. All new Pro units will have one-year "store-stock" warranty from the date of purchase from Kurzweil.
2. All reconditioned Pro units will have 90-day "store-stock" warranty from the date of purchase from Kurzweil.
3. All new Home products will have 2-year labor, 3-year parts "store-stock" warranty from the date of purchase from Kurzweil.
4. All reconditioned Home products will have a limited 1-year "store-stock" warranty from the date of purchase from Kurzweil.
5. Stores will have 90 days from receipt of the unit to report any problems for the purpose of requesting a return authorization of defective product. After 90 days, stores will be asked to send the unit to a local repair center before requesting an RA.
6. All "Store Stock" units must be cleared with the warranty dept. and issued a repair authorization code. No warranty will be paid without the repair code. A repair authorization code can be obtained by calling (800) 874-2880 x106 or by email at support@yca.tzo.com

Example: new professional products have a one-year parts and labor warranty for customers that purchase the item from the dealer. The store that sold that professional unit must sell that product within one year to obtain financial support for warranty repairs on that unit.

All serial numbers are tracked to follow maintenance issues concerning Kurzweil products. It is the dealers responsibility to provide documentation to the repair station to prove original purchase dates and warranty validity.

Warranty Reimbursement and Quality Report - Page 1

Service Center	Cantos Music Foundation	Account #	Can 750
Address1	134-11th Ave S.E.	Contact Name	John Leimseider (JL)
Address2		Phone	403 543-5127
City	Calgary	Fax	403 543-5129
State, Zip	Alberta T2G0X5	Email	leimseiderj@cantos.ca.
Customer		Model No.	
Address1		Serial No.	
City, State Zip		Purchased From	
Phone		Date of Purchase	
Return#		Customer PO#	

Technician Name	John Leimseider		
Date			
Special Authorization #			
Problem/complaint	Repair performed-be detailed and specific		Labor hours
		Travel Hours	
		OR	
		Travel Miles	

Part #	Description	QTY	Original Order #	Parts Credit	Parts replaced	Parts Paid

Location of Piano	Showroom		Warehouse		Home		Other	
Cabinet/Finish	Tuning		Voicing		Pedals		Keys	

For Internal Use Only

Approved by	Date	Other	Total Hours	Approved Amount
Problem Code			Product Code	

Submission of this form via Email is equal to your signature of authorization. Please retain a copy for your records.

SUBMIT THIS FORM VIA	
EMAIL: support@vca.tzo.com	FAX: 253-584-5910

Warranty Reimbursement and Quality Report - Page 2

Please provide the following critical information with every warranty claim. It is for feedback to our factory and engineers for current model improvements and for future developments. **This only applies to current production model items. *If the item you are servicing is not on the list disregard this form.***

Circle the selections that apply to the unit being serviced:

Pro Product: K2600 K2600X K2600XS K2600R K2600RS K2661 K2661S
PC2 PC2X PC2-O PC2X-O PC2R PC2R-O
SP76 SP88 SP88X ME-1 KME-61 KSP8 Rumour Mangler
Home Product: Mark 10 Mark 12 Mark 112 Mark 152

Describe the reported symptom: _____

Failed Assembly (Circle One):

Engine PCB / DSP PCB / Audio PCB / Scanner PCB / Connector I/O PCB
Control Panel PCB Power Supply PCB / Power Adapter / Sound PCB /
Pitch-Mod Device / LCD / Cabinet or Enclosure / Keyboard / Pedal / Software
Cable (Describe): _____

Failed Components (if replaced/repaired at service center VS. assembly swap):

Location on PCB: _____ (i.e., U10, R12)
Was re-soldering the solution - problem found was poor solder joints? (Circle one) YES NO
If yes, describe the re-solder location: (Circle one) Surface Mount DIP

Comments / Suggestions: _____

Procedure for Ordering Parts

To order parts, complete the Parts Order Form, KSD 3B and fax it or email it to:

FAX: 253-584-5910

Email: parts@yca.tzo.com

Note: use form KSD 4B Missing Parts- if you are missing a part out of a newly received product.

Please, complete the order form by filling in all the fields:

Required Fields:

Contact name:	Person handling the problem on your end.
Company name:	Name of your dealership or service center.
Ship to address:	Actual shipping address the shipment should go to.
Account number:	6-digit AND Music Corp account number.
Purchase order number:	Your PO number for future reference.
Phone and fax numbers:	Phone, extension and fax numbers that reach the contact person.
Email address:	Contact person's email address.
Shipment preference:	Circle the method of shipping you need.
Confirmation method:	Circle the method of order confirmation you need.
Warranty?	Circle "Yes" or "No" for the appropriate warranty status of the unit.
Serial Number:	Write in the 12-digit number. It provides very important information.
Model:	Write in the model number of the unit.
Date of purchase:	Write in the date of purchase on warranty units.

Description and part numbers: for best results, please provide a description of the part and include the serial number of the unit. Part numbers in manuals can be misleading making the description very important. If we need any clarification, we will contact you.

Warranty parts: we still need to track what parts are going out for warranty, although we are now charging (with the exception of missing parts orders on KSD 4B) for all parts and reimbursing by credit memo using warranty claim forms (KSD 2D-1). For Warranty Reimbursement, you will need to list your purchases on your Warranty Reimbursement Claim Form. We ask for the serial number of the unit, and the date of purchase to verify for future purposes. Once your order has been received and processed, we will notify you according to your request.

Terms: warranty parts are Net 60 others are Net 45. With Net 60 you must turn in claim or pay for the parts in 60 days. With Net 45 you must pay parts promptly in 45 days. With warranty parts on Net 60 terms credit will be issued to an invoice when the warranty claim is received.

Kurzweil Parts Order Form

FAX: 253-584-5910

Contact Name		Account#	
Company Name		PO #	
Address1		Phone	
Address2		Fax	
City, State Zip		Email	

Circle shipping preference: Ground 1-Day 2-Day 3-Day

Circle confirmation method: Email FAX Don't Verify

Note: confirmation is normally by the same method the request submitted in.

NOTE: You can track from UPS website using your zip code and the AND Music sales order number as the reference numbers required in the website.

Comments

Warranty? YES NO (Circle)

Serial Number:

Date of Purchase:

Model Number:

Part Number	Description	Qty	Price	Total

Email parts orders to: parts@yca.tzo.com

Internal Use Only – AND Sales Order Number:

PROCEDURE FOR ORDERING MISSING PARTS

To order parts that are missing from units upon arrival at your dealership, please complete the Missing Parts Order form, (KSD 4B) and fax or email it to:

Fax: (253) 584-5910

Email: parts@yca.tzo.com

Please, complete the order form by filling in all the fields:

Required Fields:

Contact name:	Person handling the problem on your end.
Company name:	Name of your dealership or service center.
Attention:	Name of the person that should get the replacement parts.
Ship to address:	Actual shipping address the shipment should go to.
Account number:	6-digit AND Music Corp account number.
Purchase order number:	Your PO number for future reference.
Phone and fax numbers:	Phone, extension and fax numbers that reach the contact person.
Email address:	Contact person's email address.
Date:	Date the request was submitted.
Sales Order Number:	Sales order number the unit missing parts was shipped on.
Model:	Write in the model number of the unit.
Serial Number:	Write in the 12-digit number of the unit received with missing items.
Shipment preference:	Circle the method of shipping you need for the replacement items.
Confirmation method:	Circle the method of order confirmation you need.

In order to process missing parts, orders must be submitted within 90-days of receiving the unit. Please check your units carefully upon receiving them for Missing Parts and for shipping damage.

Note: check the accessories lists (KTD 1C and KTD 2C) to make sure that the missing part actually ships with the particular unit in question. (For example, K2500's do not ship with AC adapters, as they have built in power supplies. These units ship with a power cord instead.)

It is important to note that your order will only ship at no charge when your request is validated. If your request cannot be verified, you will be notified of a parts charge.

KURZWEIL MISSING PARTS FORM **FAX: 253-584-5910**

CONTACT NAME		ACCOUNT #	
COMPANY NAME		PO#	
ATTENTION		PHONE	
SHIP ADDRESS		FAX	
CITY, STATE		EMAIL	
ZIP CODE		DATE:	

SALES ORDER #		MODEL	
DATE RECEIVED		SERIAL NUMBER	
RECEIVED BY:			

Circle shipping preference:	Ground	1-Day	2-Day	3-Day
Circle confirmation method:	Email	FAX	Don't Verify	
Note: confirmation is normally by the same method the request submitted in.				

NOTE: your order will only ship at no charge when your request is validated. If your request cannot be verified, you will be notified of a parts charge.

PART NUMBER	DESCRIPTION

COMMENTS:

EMAIL TO:
parts@yca.tzo.com

Procedure for Ordering Boards (PCBs)

To order parts from Kurzweil, complete the Board Order Form, (KSD 5B.) and fax it or email it to:

Fax: (253) 584-5910

Email: production@yca.tzo.com

Please, complete the order form by filling in all the fields:

Required Fields:

Contact name:	Person handling the problem on your end.
Company name:	Name of your dealership or service center.
Ship to address:	Actual shipping address the shipment should go to.
AND Account number:	6-digit AND Music Corp account number.
PO#:	Your PO number for future reference.
Phone and fax numbers:	Phone, extension and fax numbers that reach the contact person.
Email address:	Contact person's email address.
Model:	Write in the model number of the unit.
Unit Serial Number:	Write in the 12-digit number of the unit in maintenance
Date of purchase:	Write in the date of purchase of the unit in maintenance. (Note: the date of purchase of the unit in maintenance directly effects how we allocate return credit on the return authorization for the defective board.)

Description and part number: In the second part of the KSK you will find technical documents – KTD 1C and KTD 2C contain descriptions and parts numbers of PCBs. If we need any clarification, we will contact you.

A description of the Malfunction is required for ALL board orders.

Once your order has been received, we will notify you with a confirmation that requires a signature of the responsible contact person. If this confirmation is not returned and signed – no order will be placed.

***Note:** The return authorization number for the defective board will always be listed on the packing slip of the new board we ship out. Please be sure that every board you ship back has an RA# VISIBLY MARKED on the box and Board, so your credit may be applied correctly.

Board Order Request Form

Please, completely fill out this form.

FAX to: 253-584-5910

Contact Name		AND Account #:	
Company Name		PO #:	
Address 1		Phone #:	
Address 2		Fax #:	
City, State, ZIP		Email #:	

Model		Date of Purchase	
Unit Serial Number		PCB Serial Number	

Note: see KTD 1C and KTD 2C in the KSK for PCB descriptions and part numbers.

Description of needed PCB:

Part number needed PCB:

DETAILED DESCRIPTION OF MALFUNCTION

PLEASE SUBMIT THIS FORM VIA

Email: production@yca.tzo.com

Phone: (800) 874-2880 ext 103

Return Authorizations (RA) for Unit Credit or Unit Replacement

(Not for parts – only units.)

Please submit requests for unit return authorizations using the RA Request Form (KSD 6B). Email or FAX the request to:

FAX: 253-584-5910

Email: production@yca.tzo.com

Please, complete the order form by filling in all the fields. Any request not meeting the above criteria may result in the refusal of an authorization. Each case not meeting the above criteria will be evaluated on an individual basis, with special emphasis on providing excellent customer service. All return authorizations will be subject to final approval by the Kurzweil Service Department Manager.

Required Fields:

Contact name:	Person handling the problem on your end.
Company name:	Name of your dealership or service center.
Ship to address:	Actual shipping address the shipment should go to.
Account number:	6-digit AND Music Corp account number.
Purchase order number:	Your PO number for future reference.
Phone and fax numbers:	Phone, extension and fax numbers that reach the contact person.
Email address:	Contact person's email address.
Shipment preference:	Circle the method of shipping you need.
Model:	Write in the model number of the unit.
Serial Number:	Write in the 12-digit number. It provides very important information.
Date of purchase:	Write in the date of purchase on warranty units.

Answer all the questions concerning unit condition and troubleshooting.

Describe in detail the malfunction of the unit. Requests for RA will be rejected for insufficient detail or the if description does not make sense.

A **replacement unit** will be sent if you indicate "Yes" near the bottom of the form.

AND Music Corp will accept the return of defective product if the request meets all of the following criteria:

a. The unit exhibits a problem described as a manufacturer defect as detailed in the warranty card included with the unit. (This does NOT include shipping damage or damage because of any negligence after shipment from AND Music Corp.)

NOTE: *units with shipping damage should have a shipping damage claim filed as soon as possible after the damage is discovered. AND Music Corp will only pay for shipping damage incurred in shipments originating from our warehouses. We are not responsible for shipping damage in shipments originating at dealerships or service centers.*

b. The unit has been in the possession of the requesting dealership no longer than 90 days (approximately 3 months.) If the unit has been at the dealership for longer than 90 days, the company requesting the RA should call a local service center and request a warranty repair.

Request for Return Authorization

Fax to: 253-584-5910

(Credit returns of defective units not parts)

Contact Name		Account#	
Company Name		PO #	
Address1		Phone	
Address2		Fax	
City, State Zip		Email	

Circle your Shipping Preference: UPS FEDEX OTHER: _____

MODEL	SERIAL NUMBER
	(Please use all 12-digits of the serial number)
DATE OF PURCHASE:	

PLEASE ANSWER THE FOLLOWING:	YES/NO
Does the unit power up?	
Did you perform a hard reset?	
Does the unit pass all diagnostics?	
Did the problem arise due to shipping?	
Do want a replacement unit NOT credit?	

Mark with "X" to describe the problem:			
ELECTRONIC (Below):		COSMETIC	
INTERMITTENT OR		MECHANICAL (Below):	
CONSTANT		PITCH DEVICE	
		KEYBOARD	

Detailed Description of Malfunction:

TO SUBMIT THIS FORM VIA EMAIL: production@yca.tzo.com

RETURN SHIPPING INFORMATION: (NOTE: ensure the RA# is written on the return shipping carton.)

Phone	Address
800-874-2880 ext 103	AND Music Corp, 9501 Lakewood Drive SW Suite D, Lakewood WA 98499

PROCEDURE FOR REPAIR REQUEST

A dealer or service center may request a Service Number to send a unit or boards to our warehouse for repair. This service is reserved for extreme emergencies and should **only** be approached when all other means of repair have been attempted.

To request a Service Repair, please submit a request form (KSD 7B) at:

Fax: (253) 584-5910

Email: production@yca.tzo.com

Please, complete the order form by filling in all the fields:

Required Fields:

Contact name:	Person handling the problem on your end.
Company name:	Name of your dealership or service center.
Ship to address:	Actual shipping address the shipment should go to.
AND Account number:	6-digit AND Music Corp account number.
Phone and fax numbers:	Phone, extension and fax numbers that reach the contact person.
Email address:	Contact person's email address.
Model:	Write in the model number of the unit.
Unit Serial Number:	Write in the 12-digit number of the unit in maintenance
Date of Purchase:	Write in the date of purchase of the unit.
Warranty:	Circle "Yes or "No" about warranty status.

Description of Malfunction: In detail, describe the symptoms of the failure. Anything that will help the tech isolate the malfunction.

Note: After reviewing your request, we will confirm your request. Signing this confirmation and faxing it back will complete the communication process and allow a service number to be assigned and you will be contacted with the service number and any additional instructions.

REQUEST FOR REPAIR SERVICE**FAX To: 253-584-5910**

CONTACT NAME		ACCOUNT #	
DEALER NAME		PHONE #	
RETURN ADDRESS		FAX	
CITY, STATE		EMAIL	
ZIP CODE			

MODEL #		SERIAL #	
DATE OF PURCHASE		WARRANTY	

Describe the Malfunction (in detail):

SUBMIT THIS FORM VIA	
EMAIL: <u>production@yca.tzo.com</u>	

SHIPPING INFORMATION:	
PHONE 1-800-2880 ext. 103	ADDRESS 9501 LAKEWOOD DRIVE SW suite D LAKEWOOD, WA 98499

Kurzweil Service Kit

Part II

Kurzweil Technical Documents

Hard Reset and Diagnostics for: Kurzweil Professional Product

Hard Reset often clears up software anomalies. It is the first thing a tech or owner should do when experiencing problems. It can save both time and money and prevents misdiagnosis of problems, at times. It will clear out your RAM and you will lose anything you've created, putting the unit back to factory default.

- K2000** Turn off the unit. Hold down buttons 1, 2, and 3 then turn the unit back on. Continue holding down buttons 1, 2, and 3 until all the program section LEDs flash in sequence. When you release the buttons, your screen should give you the option to choose, "HARD RESET," or, "DIAGNOSTIC." Select your option by using the up and down arrow cursors and pressing "ENTER." The best way to perform a hard reset is to enter diagnostics and run the "PSRAM" test. (One sure-fire brute force way to reset all areas of the unit is to yank the (3) AA batteries and leave them out for about a 1/2 hour.)
- K2500**
K2600 Start by turning the unit off and then back on again. When the display reads, "PLEASE WAIT," press and release the EXIT button. The display should read, "BOOT LOADER." Select an option using the arrow cursors and pressing, "OK" or "ENTER." The best hard reset is to enter diagnostics, and run the "RAM/PRAM," test.
- PC88** Turn the unit off. Hold down buttons 1, 2 and 3, and turn the unit back on. Wait about a quarter of a second and release the three buttons. You should now see 2 options: HARD RESET and DIAGS – Select "Hard Reset" to reset your unit to factory default settings. To enter diagnostic mode, select "DIAGS." Press the "+" or "-" button to scroll through the different diagnostic tests. Press the "ENTER" button to select a test.
- PC2** Turn the unit off and on again. When the display reads, "PLEASE WAIT," press and release the "PANIC" button. Press the left or right arrow buttons to scroll through the options, and use "ENTER" to initiate the appropriate selection.
- PC2R** To start, turn the unit off and back on again. When the display reads, "PLEASE WAIT," press and release the "EDIT" button. Press the left or right arrow buttons to scroll through the options, and use "ENTER" to initiate the appropriate selection.
- SP76/88** Turn power off. Hold down the two "PANIC" buttons. ("COLUMN SELECT" AND "ROW SELECT"). Turn the unit back on. When LED'S have flashed twice, release the "PANIC" buttons. The display should read, "PLC", press "ROW SELECT" (the right panic button) one time. The display should now read "CPU". Press the "COLUMN SELCT" button, (the left panic button) one time. The display should flicker than show, "rON." Press "ROW SELECT" five times until the display reads, "1n1". Press "COLUMN SELECT" one time. Press the up arrow (yes) once. The display should show "PAS". Turn the unit off, it is now reset.
- KME-61** Turn the power off. Turn the power on. Press the "Master" button. Use the down arrow to scroll down until you see "System Reset." On the LCD, you will see the selection "Reset" – press the flashing button under "Reset" and follow the instructions.
- KMP-1 / ME-1** No reset procedure. These units reset when power is turn off.
- KSP8** Turn off the KSP8. Turn it back on and press "Exit" while the screen says "Please Wait." Press the "Reset" soft button. Turn the unit of then on and the unit should be reset.
- Rumour / Mangler** Turn the unit off. Turn the unit on. Select the "Master" hard button to enter the "Master Menu." Use the "parameter select" knob to scroll. Scroll to the right about 18 selections and push the "Load" button. The reset after you use this function.

Hard Reset and Diagnostics for: Kurzweil Home Product

Hard Reset often clears up software anomalies. It is the first thing a tech or owner should do when experiencing problems. It can save both time and money and prevents misdiagnosis of problems, at times.

- RG100**
MARK 2 The only way to "HARD RESET," this unit, is to run diagnostics. Turn unit off. Hold down the "FUNCTION" button. Turn the unit on, and hold the function button three (3) seconds. Only the "SELECT," AND "POWER" LED's should be lit. Press and release the "REVERB" button. Let the tests run for 5 minutes. Turn the unit off. The unit is now reset.
- RG200**
Mark 3 The only way to "HARD RESET," this unit, is to run diagnostics. Turn unit off. Turn unit on. Press and release the "FUNCTION," button. Press and release the sixth E flat from the left. Just the "POWER," and "PLAY" LED's should be lit. Press and release the, "STAGE/ROOM," button. Let the tests run for 5 minutes. Turn the unit off. The unit is now reset.
- MARK 5** Turn the unit off. Hold down the "TRANPOSE," "MIDI," and, "DEMO" buttons. Turn unit on. Wait 5 seconds then release all buttons. Press and release the "CHORUS/ECHO/-SYMPHONIC," button. Let the tests run for 5 minutes. Turn the unit off, the MARK 5 is now reset.
- MARK 6** Turn the unit off. Hold down the, "KEY START," "PEDAL START," and, "METRONOME," buttons down. Turn the unit on. Wait 5 seconds, then release all buttons. Press the "CHORUS/ECHO/SYMPHONIC," button. Wait 5 minutes, turn the unit off. The MARK 6 is now reset.
- MARK 8** Turn the unit off. Hold down the, "BROADWAY/CLASSICAL," and "16 BEAT-1/16 BEAT" and "FILL TO ORIGINAL," buttons. Turn the unit on. Wait 5 seconds, then release all buttons. Press the, "CHORUS/ECHO/SYMPHONIC," button. Wait 5 minutes, turn the unit off. The MARK 8 is now reset.
- MARK 10**
MARK 110
MARK 150 Turn the unit off. Hold down the, "SWING WALTZ," AND "START/STOP," buttons. Turn the unit on and swiftly press and hold the "TRACK 1," button. Wait 5 seconds and release all three (3) buttons. The display should now read, "000". Press the up arrow button until the display reads, "003". Press and release the "VARIATION" button. After a few seconds, the "CHORD HOLD," LED should flash, indicating the test passed. Turn the unit off, the unit is now reset.
- MARK 12**
MARK 112
MARK 152 Turn the unit off. Hold down the "KEY START," "KEY STOP," AND "LAYER VOLUME," buttons. Turn the unit on. Wait 5 seconds then release all the buttons. Select, "RUN DIAGS." Press the UP arrow until the display reads, "RAM TEST." Press the "START/STOP," button to run the test. When the display reads, "TEST PASS." Turn the unit off, the unit is now reset.
- V110**
V150 Turn the unit off. Turn the unit on. Immediately, while the LCD says "waiting for scanner," press and release the "DEMO" button on the right of the control panel. When you see "MAIN MENU" and "INSTALL ENGINE," press the left arrow once to find "HARD RESET." Press the "LAYER" (Enter) button on the LCD screen. Press the "SPLIT" (Yes) button.

There is no hard reset or diagnostic available for the MARK 1.

Pro Accessory Part Number and Pricing List

KEYBOARD	DESCRIPTION	PART#
K2500 KEYBOARD/RACKS	PREFORMANCE GUIDE	D910251
	REFERENCE MANUAL	D910252
	RUBBER FEET (4X)	D39040002
	POWER CORD	D42000701
KEYBOARD ONLY	PEDAL	DKFP-1
RACK MODEL ONLY	OWNERS MANUAL	
RACK MODEL ONLY	RACK EARS (2X)	D320802001
K2600 KEYBOARDS/RACKS	MUSICIANS GUIDE	D910330
	REFERENCE MANUAL	D910331
	POWER CORD	D42000701
	RUBBER FEET (4X)	D39040002
KEYBOARD ONLY	PEDAL	DKFP-1
RACK MODEL ONLY		
RACK MODEL ONLY	RACK EARS (2X)	D32802001
KME-61 KEYBOARDS	MANUAL	D91020426
	PEDAL	DKFP-1
	AC ADAPTER	D52001000
KSP8 EFFECTS PROC	MANUAL, Musician's Guide	D91035801
	MANUAL, Algorithm Reference	D91035901
	POWER CORD	D42000701
	RACK EARS (2X)	D32047601
RUMOUR / MANGLER EFFECTS	MANUAL	D92000022
	AC ADAPTER	D52001000
ME-1 SOUND MODULE	MANUAL	D91020134
	AC ADAPTER	D52001000
PC88 KEYBOARD	OWNERS MANUAL	D910243
	RUBBER FEET (6X)	D22013002
	AC ADAPTER	D52001000
PC2/X KEYBOARD/RACK	OWNERS MANUAL	D910345
	AC ADAPTER	D52001021
	RUBBER FEET (6X)	D39040002
KEYBOARD ONLY	PEDAL	DKFP-1
RACK MODEL ONLY	OWNER'S MANUAL	D910350
	RACK EARS	D32802001
SP76/88-X KEYBOARDS	OWNER'S MANUAL	D910329
	PEDAL	DKFP-1
	RUBBER FEET	D3904002
	AC ADAPTER	D52001018

Home Accessory Part Number and Pricing List

KEYBOARD	DESCRIPTION	PART#
MARK 10	MANUAL	D91022300
	POWER CORD	D42000701
	ACCESSORY BAG	D12000258
	*POLISH& MITT	
	*KEY COVER FELT	
MARK 12	MANUAL	D91022300
	POWER CORD	D42000701
	ACCESSORY BAG	D12000259
	*POLISH& MITT	
	*KEY COVER FELT	
MARK 110	MANUAL	D91022395
	POWER CORD	D42000701
	ACCESSORY BAG	D12000260
	*POLISH & MITT	
	*KEY COVER FELT	
MARK 150	MANUAL	D91022400
	POWER CORD	D42000701
	ACCESSORY BAG	D12000262
	*POLISH & MITT	
	*KEY COVER FELT	
MARK 152	MANUAL	D910294
	POWER CORD	D42000701
	ACCESSORY BAG	D12000261
	*POLISH & MITT	
	*KEY COVER FELT	
KHP101	MANUAL	D910298
	POWER CORD	D42000701
		D12000247
	*KEY COVER FELT	
V110/V150	MANUAL	91020436
	POWER CORD	D42000701
	ACCESSORY BAG	
	*POLISH & MITT	
	*LOCK KEY for V150	

BENCHES

COLOR	DESCRIPTION	PART #
BLACK PADDED	MARK 10 PLASTIC	D10100142
EBONY POLISH	CB-10 BENCH: MARK 10, 12, KHP101	D10100205
WHITE POLISH	CB-10 BENCH: MARK 10, 12, KHP101	D10100309
MAHOGANY RED POLISH	CB-10 BENCH: MARK 10, 12, KHP101	D10100402
IVORY POLISH	CB-10 BENCH: MARK 10, 12, KHP101	D10100506
CHERRY	CB-10 BENCH: MARK 10, 12, KHP101	D10100534
MED. OAK	CB-10 BENCH: MARK 10, 12, KHP101	D10100536
EBONY POLISH	GRAND BENCH: MARK 110, 150, 152	D11120217
MAHOGANY RED POLISH	GRAND BENCH: MARK 110, 150, 152	D11120218
WHITE POLISH	GRAND BENCH: MARK 110, 150, 152	D11120219
IVORY POLISH	GRAND BENCH: MARK 110, 150, 152	D11120220
MED. OAK	GRAND BENCH: MARK 110, 150, 152	D11120223

AC ADAPTERS FOR KURZWEIL PRODUCTS

PART #	UNIT	VOLTAGE	MODEL #	MANUFACTURER	AMP
D52001011	RG200	15.0V DC	PD150-25A	DONG HO	2.5A
D52001005	RG100	13.5V DC	PP135-17	DONG HO	1.7A
	MARK 1				
	MARK 2				
	MARK 3				
	TROUBADOR				
D52001018	SP76	12.0V DC	A31265Q		500 MA
	SP88		OR		
	SP88X		YK-1205OU		
	XM-1*		OR		
			DC1205 FS		
D52001000	PC88	9.5V AC	PP95-20 OR	DONG HO	2A
	ME-1		STA-5790		
	KME-61				
	Rumour				
	Mangler				
D52001021	PC2	9V DC/ 14.0 AC	PM0025-001	DONG HO	2A/25A
	PC2X				
	PC2R				
D58801002	KMP1	9V AC	AA091A	LZR	1A
D52002000	KTL	14V AC	420A0002	TAMURA	770MA

* EXPRESSION MATE

Kurzweil product serial numbers have embedded information that provides keys to production changes and other details. Over the years changes in the structure have been made that need to be explained. We ask for the serial number in most of our administrative documents and hope this document helps to explain the purpose.

Examples of different numbering methods:

9XXXXXXXXX 9-digit serial numbers were used ...

42940200185 Sometime in 1996 units went from 11 digits to 12

429802001858 Sometime in 199? serial numbers with 12-digits were put to use.

K... Sometime in 199? units were shortened and started with a "K."
This particular serial number is not very informative. The style was only
in use for a short time.

S4201A001858 Sometime in 199? 12-digit serial numbers issued with a letter at the beginning
to designate the manufacturing location.

Reading from the left (using example serial number 429802001858):

NOTE: the following mainly applies to the 12-digit serial number types.

- a. If the serial number starts with a letter it tells where the unit was manufactured. **If the number starts with a letter - only the sixth digit indicates the month.** The example is an older serial number that starts with a number rather than a letter.
- b. The first two numeric digits (not letters), reading from the left indicate the unit type. 42 = a PC88.
- c. The third and fourth numeric digits indicate the year of production. 98 = 1998.
- d. The fifth and sixth digits indicate the month of production. 02 = February. **Unit serial numbers that start with a letter only use the 6th digit for the month. Numbers 1 through 9 are used to represent January through September. A, B, C, represent October through December.**
- e. The seventh and eighth digits are used for color codes on home product (the example is pro product).
- f. The ninth through twelfth digits are generated when the unit is produced within a month. In the example you see "1858." This means that the particular unit was the 1858th unit made in the month of February, 1998.

Serial Number Prefixes:

NOTE: "W" denotes a non-knockdown wood model. "WN" denotes a knockdown unit. "LB" means a plastic enclosure model. "WK" means Wood classis model.

Prefix	Model	Prefix	Model
10	MK1	55	MK12
29	SP88X	56	MK12i
30	KSP8	58	MK152i
45	K2500X AES	57	MK112
90	KME-61	59	MK5WN
98	ME-1	60	MK10WN
11	MK2	61	V110
12	MK3	62	V150
13	MK5 (LB)	66	MK6
14	MK10 (LB)	69	KHP-101 (HYBRID)
17	MK8	71	RG300(DREAM-7)
18	MK150	72	RG300SE(DREAM-7W)
19	MK7G	80	PC2
20	MK150E(PLUS)	81	PC2X
21	K2000	83	PC2R
22	K2000R	90	KME-61
23	MK5W	98	ME-1
24	MK10W	99	KMP-1
26	MK10WK	518	DMTI
27	MK5V	519	DMTI (TASCAM)
28	MK10SW	520	DMTI (ADAT)
29	SP88X	SX9	XM-1
30	KSP8	SX9	XM-1
31	RG100(SE)		
32	RG200		
33	RG200SE		
34	K2600		
35	K2000VP		
36	K2000RVP		
37	SP76		
38	SP88		
39	K2600X		
41	PC88		
42	PC88MX		
43	K2500		
44	K2500X		
45	K2500X AES		
47	K2500R		
48	K2600R		
49	K2000VX		
51	MK10U		
52	MK110		
53	MK152		
54	MK110N		

Color Codes

00	No code	
01	EP	Ebony Polish
02	WHP	White Polish
03	WCP (AW)	American Walnut
04	OLS (MO)	Mediterranean Oak
05	MRP	Mahogany Red Polish
06	RDP	Red Polish
07	IP	Ivory Polish
08	OBP	Oak Brown Polish
09	WP	Walnut Polish
0A	BS	Black Satin
0B	WOP	Walnut Open Pore
0C	WS	Walnut Satin
0D	BLP	Blue Polished
0E	MROP	Mahogany Red Open Pore
0F	CYOP	Cherry Yellow Open Pore
0G	MBP	Mahogany Brown Polished
0H	WLS (IW)	Walnut Lilly Satin
0J	CYP	Cherry Yellow Polished
0K	MLS	Mahogany Lilly Satin
0L	CLS (FC)	Cherry Lilly Satin
0M	CYLS	Cherry Yellow Lilly Satin
0N	SW	Simulated Walnut
P0	LG	Lexa Green
1N	SBW	Simulated Black Walnut
N4	SOW	Simulated Oak
NL	SC	Simulated Cherry
0P	Blue	Blue

KURZWEIL

~~Music Systems~~

YOUNG CHANG AMERICA, INC

9501 LAKEWOOD DR SW SUITE D, LAKEWOOD, WA 98499

Phone: 253/589-3200

FAX: 253/584-5910

SP SERIES – VERSION IDENTIFICATION

Current Sound ROM Version for SP76/88 Models is: **1.C**

1. Power up unit by holding down **"Column Select/Row Select"** buttons at the same time.
2. Continue to hold them down until the display flashes **"V1.X"** * This is the version of the Controller PCB.
3. The display will then read **"PLC"**, meaning you are in diagnostics.
4. Press the **"Row Select"** button twice – Display should now read **"SND"**
5. Press the **"Column Select"** Button – Display should now show **"V1.C"**.
(If it shows a lower version of software, this unit should be updated.)
Kurzweil Part Number: D62004301

If the display shows a **"NOS"** or something different than stated above, and/or you have just replaced **U3** with Version 1.C and the unit emits no sound – you should check for 24.576mhz clock @ Y1. If no clock is present, replaced Y1. Kurzweil Part Number: D59010061

*To do keyboard split, version must be V1.2 or higher. If it is of a lower version, the scanner PCB must be replaced.

SP76 Kurzweil Part Number: D12305551

SP88 Kurzweil Part Number: D12305551/88

	ORIGINAL	UNIT S/N TP10			
UNIT TYPE	K.S. VER	MD -> MDF	K.S. VER.	MDF WITH ABS	K.S. VER.
PC-88	1.00	419802006589	1.01	419812009144	1.02
PC-88 MX	1.00	429802001757	1.01	429812003947	1.02
K2500X	3.20	449802z03714	3.22	449812z04892	3.26
K2500XS	3.20	449802zs1864	3.22	449812zs2758	3.26
MK-5	1.14	599804040300	1.20		
MK-10	2.15/ 2.16	6098040n0518	2.17	S609960L00001	3.07
MK-12	N/A	5598040n0195	table A	S559960L0001	table B
MK-110N	2.15/ 2.16	549804010412	2.17	S54996010029	3.07
MK-150	2.15/ 2.16		2.17	? summer of 99	3.07
MK-152	N/A	539804010552	table A	S53996010059	table B
RG-200	1.00	329803007726	2.10		
RG-200SE	1.00	3398040n0673	2.10		

MARK 10 & 12 AUDIO BOARD EQ DIFFERENCES

	MK10 PLASTIC	MK10 KNKDWN	MK12 KNKDWN
R59 & R68	59K		
R56 & R65	2K	750ohm	750ohm
R57 & R66	806ohm	825ohm	825ohm
R58 & R67	59K	45.3K	45.3K
R14 & R19	4.75K	4.75K	3.32K
R6	4.7K	4.7K	4.7K
C57 & C63	1uf	1uf	1uf
C56 & C62	5600pf		

K U R Z W E I L

Music Systems

A N D MUSIC CORP.

9501 LAKEWOOD DR SW SUITE #D., LAKEWOOD, WA 98499

PHONE # 253-5889-3200 FAX: 253-584-5910

NOTICE:
FOR INSTALLING NEW ENGINE & AUDIO BOARDS

For the following units manufactured before July of 1999**.

- Mark 10
- Mark 110
- Mark 150

It is very important that you check the +5 volts after installing a new engine or audio board. This voltage must be adjusted so that the voltage is between +4.80 volts and +4.85 volts for the correct operation of these units.

Location:

The adjustment trimmer is located on the power/amplifier board. It is labeled "R5" on the Mark 150 & "R82" on the Mark 10 & Mark 110.

** Engine boards manufactured after June of 1999 will have surface mounted Eproms.

MARK 12 BOOTLOADER INSTALLER EPROM

FOLLOW THIS PROCEEDURE FOR REPROGRAMMING THE BOOTLOADER INTO THE FLASHROM

1. Turn off unit.
2. Put a temporary jumper on JP1 (jumper provided) in order to access (U39) the BOOTLOADER EPROM.
3. Insert BOOTLOADER EPROM into U39 socket while paying attention to the key.
4. Turn on unit and insert the disk provided.
5. Select "Install File". Press the "UP" button until "M12FB105.KOS" is displayed.
6. Press "Go" twice.
7. After the file is loaded, select "HARD RESET" then "CONTINUE" then "OK".
8. Turn the unit off, remove the BOOTLOADER EPROM and JP1.
9. Turn the unit on while holding the "Key Start", "Key Stop" and "Layer Volumes" buttons.
10. Insert the Operating System disk.
- 11.

FOLLOW THIS PROCEEDURE FOR UPDATING THE VELOCITY TABLES

1. Turn on unit.
2. Verify what TABLE is loaded in unit. (See note)
3. Turn off unit.
4. Hard wire JP7 (jumper provided) on engine board if one is not present. JP7 must be present from now on.
5. Put a temporary jumper on JP1 (jumper provided) in order to access (U39) the BOOTLOADER EPROM.
6. Insert BOOTLOADER EPROM into U39 socket while paying attention to the key.
7. Turn on unit and insert the disk provided.
8. Select "Install File" then select the appropriate TABLE by pressing the "UP" button. Press "Go" twice.
9. After the file is loaded, turn unit off, remove BOOTLOADER EPROM and JP1.
10. Turn unit on and verify that the correct TABLE is loaded.
11. Give unit a hard reset by pressing "Midi/Pref" button, select "hard reset" and "yes" twice.

Note: In order to check the TABLE, Operating System and Soundware version, press the "Midi/Pref" button. Select "preferences", * then press "Next" 10 times. The TABLE version is in the upper right hand corner, either "fA" or "fB". On units without MDF counter-weights, there will be nothing displayed. (Nothing displayed = non MDF, fA = MDF but non ABS plastic, fB = MDF with ABS plastic. All counter-weights shipped from AND Music Corp. will have ABS plastic.)

* Another way is to press and HOLD the "Next" button and then press the "Down" button. This is like pressing a reverse "Next" button.

Kurzweil Service Kit (Service Center Supplement)

Part III

**Kurzweil Technical Documents
(June 2003)**

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Pro PCB Part Numbers

NOTE: Warranty boards are charged at full price and reimbursed at full price when RA returns the bad board. Non-warranty boards are charged full price and reduced to half-price when RA returns a repairable bad board. PCBs on this list are only the engine or audio related PCBs that require special attention in the ordering process.

MODEL/BOARD	PART#
K2000 ENG. CALVIN	D12100401
K2000 ENG. JANIS	D12103001
K2000 AUDIO	D12100601
K2000 RACK ENG. CALVIN	D12102400
K2000 RACK ENG. JANIS	D12103031
K2000 RACK AUDIO	D12102600
K2500 ENG. MOTHER (72 PIN)	D12104320
K2500 ENG. MOTHER (30 PIN)	D12104319
K2500 ENGINE DAUGHTER	D12104317
K2500 AUDIO (KEYBOARD)	D12104331
K2500 AUDIO (RACK)	D12105601
K2500 POWER SUPPLY (72 PIN)	D12104341
K2500 POWER SUPPLY (30 PIN)	D12104338
K2600 ENGINE	D12305411
K2600 ENGINE DAUGHTER (DSP)	D12305413
K2600 AUDIO (I/O)	D12305611
K2600 POWER SUPPLY	D12304339
K2600 POWER SUPPLY (RACK)	D12304340
K2661	TBA
K2661	TBA
K2661	TBA
K2661	TBA
K2661	TBA
KSP8 CPU & AUDIO PCB	D12317601
KSP8 DSP PCB	D12317501
KME-61	
KME-61	
KME-61	
PC88 ENGINE	D12105001
PC88 AUDIO (I/O)	D12105101
PC2/X ENGINE	D12300051
PC2/X CONNECTOR BOARD	D12300061
SP76 CONTROLLER	D12305551
SP88 CONTROLLER	D12305551/88
SP88X CONTROLLER	D12305557
SP76/88 SOUND PCB	D12305553
SP88X SOUND PCB	D12305559
RUMOUR / MANGLER Main PCB	D12300022
MICRO PIANO Main PCB	D12104401
ME-1 Engine PCB	D12300151

Home Product PCB Part Numbers

MODEL	PART#	NOTES:	
MARK 1 Main PCB	D12104606	Warranty PCBs are charged at full price and reimbursed at full price when the bad board is returned by RA.	
MARK 2 Main PCB	D12104604		
MARK 3 Main PCB	D12304601	Non-warranty PCBs are charged full price and reduced to half-price when a <i>repairable</i> bad board is returned by RA.	
MARK 5 Engine PCB	D12812401		
MARK 5 Audio PCB (OLD)	D12401201	"NEW" or "OLD" indicates a production change occurred and serial number (SN) breakdown chart is needed above. SN often start with a letter – disregard the letter and the next 2 digits indicate the type of unit In the near future a chart will be sent to add into the KSK for your reference concerning detailed information. SN with no "S" - the next 4 digits are the date code (9901 means 1999 June). SN with "S" the next 3 digits are the date code (991 means 1999 June and the 11 th and 12 th months are "A" and "B"). The following 2 digits are the color code and then the last digits indicate which one off the line. If a production change happened, on items with different colors that were on the line at the time you will see the particular color under "TYPE" and date it changed in that month in the serial number. Any other color is assumed to have changed after that to the new style.	
MARK 5 Audio PCB(NEW)	D12401202		
MARK 6 Engine PCB	D12302053		
MARK 6 Audio PCB	D12301115		
MARK 8 Engine PCB	D12402052		
MARK 8 Audio PCB	D12401151		
MARK 10/110/150 Engine PCB (OLD)	D12101301		
MARK 10/110/150 Engine (NEW)	D12101302		
MARK 10 Audio	D12102701		
MARK 12/152 Engine	D12700103		
MARK 12/10 WN Audio PCB(OLD)	D12700003		
MARK 12/10 WN Audio PCB(NEW)	D12700004		
MARK 110 Audio PCB(OLD)	D12402010		
MARK 110 Audio PCB(NEW)	D12102702		
MARK 152 AWW KEYLIGHT	D12403002		
MARK 150/152 Audio PCB(OLD)	D12403000		
MARK 150/152 Audio PCB(NEW)	D12403001		
RG100 Main PCB	D12104610		
RG200 Main PCB	D12104901		
KHP101 Engine PCB	D12103721		
KHP101 Audio PCB	D12103733		
BREAK DOWN OF SERIAL #'S	AFTER SN with date:	Change Applied Date	TYPE
MARK 5 WN A NEW (D12401202)	599809010335	9/23/98	Ebony Polish
MARK 10 A NEW (D12700004)	609812041792	12/11/98	ALL
MARK 10 E NEW (D12101302)	S60997040098	7/28/99	Med Oak
	S60997010060	7/28/99	Ebony Polish
	S60997020001	10/15/99	White Polish
	S60997020001	8/14/99	Ivory Polish
MARK 12 A NEW (D12700004)	5598090N0239	9/18/98	Sim Walnut
	559809510020	9/18/98	ALL
MARK 110 E NEW (D12101302)	S549970L0001	7/26/99	Cherry Light Satin
	S54997010043	7/28/99	Ebony Polish
	S54997510032	7/26/99	Mah Red Pol-Lite
	S54997070001	11/11/99	Ivory Polish
MARK 110 A NEW (D12102702)	54980970178	09/98-10/98	ALL
MARK 152 A NEW (D12403001)	K94810049	4/30/99	ALL
MARK 152 A NEW (D12403002)	S5300101036	4/30/99	ALL

Home Product Speaker Part Numbers

AND Number Description

D44010100	Speaker, Mid-Range (Bottom) 6.5" Round 8 Ohm	Mark 150/152
D44010000	Speaker, Mid-Range (Top) 5"	Mark 150/152
D44000804	Speaker, Tweeter	RG-200
D44011211	Speaker, Tweeter 1" Rnd	Mark: 5WN/10WN/12
D44000815	Speaker, Tweeter 1" (Oval/Rec Brkt)	Mark: 6 / 8 / 152
D44011201	Speaker, Tweeter 1" Sq	Plastic Mark 5 / 10 and Mark 110N / 150 / 152
D44000803	Speaker, Tweeter 2	RG100
D440116001	Speaker, Tweeter Dome, Polymer 10mm	Mark 3
D44000802	Speaker, Woofer 5 25W	
D44000805	Speaker, Woofer 5" 40W	RG200 / LE-1 / Mark 5WN / MK6
D44010104	Speaker, Woofer 12" (Bottom)	Mark 150 / 152
D44040160	Speaker, Woofer 6.25" 6 Ohm	Mark 8
D44011101	Speaker, Woofer 6.5" 7 Ohm(Sq)	Mark: 5 (Plastic) / 10 (All) / 12 / 110 / 112

Modifications (PRO)

The documents in the list below are needed modifications for Kurzweil professional product. If a unit is turned into your service center it is really important to do these modifications while the unit is open on the bench.

SP Series Modification List	KTD# 110A
PC88 Modification List	110B
PC2 Modification List	110C
K2000 Modification List	110D
K2500 Modification List	110E
K2600 Modification List	110F

SP Series Modification List

CHANGES FOR THE SP SERIES

CONTROLLER PCB:

- Remove R9. With R9 installed, there is the possibility of unstable output from the volume slider.
- **On component side of the PCB:**
 1. Add a wire from J12 pin 17 to U1 pin 8.
 2. **On Rev A or earlier model PCBs**, add a 10K Ohm 5% 1/8 Watt resistor between J12 pin 18 and J12 pin 12 to correct a false Sound PCB diagnostic test failure.

NOTE: If the switch pedal that comes with the unit is plugged into the “control” jack, the audio will warble.

PARTS LIST:

D51001098 10K Ohm 5% 1/8W Resistor

PC88 Modification List

CHANGES FOR THE PC88

AUDIO PCB:

- D1, D2, D4, D5, D6, D7, D8, D9 must be 1N4148 diodes. The original diodes will breakdown when the unit warms up causing the audio to decrease or go-away.
- GJ2 should be cut/removed to eliminate the possibility of a ground loop (60Hz hum).
- If the display dims or flickers and/or there is a whine/distortion in the audio, check VR3. If it is exceptionally hot (hot enough to burn your finger) then replace VR2, VR3 and VR4.
- Check for cold solder joints, especially on J302, VR1, VR2, VR3, and VR4.

ENGINE PCB:

- L19 must be a 39-Ohm resistor.

PARTS LIST:

D53000801 Diode 1N4148

D51101112 Resistor 39 Ohm 1/8W 5%

PC2 Modification List

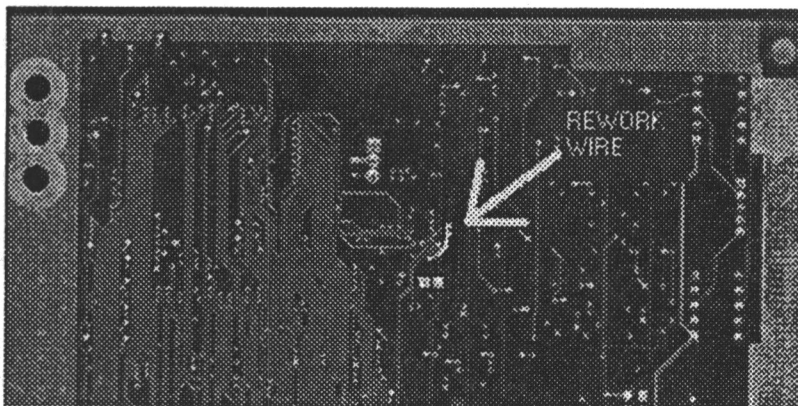
Changes for the PC2

CONNECTOR PCB:

- PC2 headphone volume is too low for certain types of headphones. Replacing R122, R133, R123 and R136 with a 15K Ohm surface mount resistor (1206 package) will increase the headphone gain.
- Unmodified Rev B boards can cause a loud audio pop on power-down and may crash on low line voltage (under 98 volts). To modify, change R117 from 2.2K Ohm 5% SMT1206 to a 470 Ohm 5% SMT1206. Also, add a 1.6K 5% 1/8-Watt through-hole resistor from the top pad (silk screened side) of R118 to the top pad of R117.
- Some units have a loud audio pop when powered down by disconnecting the adapter from the AC line. Replacing R19 with a 7.5K 5% surface mount resistor (1206 package) will alleviate this problem.
- If the spdif voltage output level is below 0.4Vpp (spdif specs are Zout=75 Ohms 20% and Vout= 0.4Vpp to 0.6Vpp) then change R6 from 374 Ohms to 270 Ohms and change R4 and R5 from 45.3 Ohms to 56 Ohms 5% surface mount (1206 package).

ENGINE PCB:

- On Rev B boards that develop a steady static sound and/or raspy distortion, a mod on the DAC needs to be performed. Lift pin 1 of U23 from its pad. Add a rework wire from lifted pin to U23 pin 15. On the solder side of the board, install a short rework wire from the pair of vias connecting U23 pin 19 to an internal layer to the via from U23 pin 1 connecting it to an internal layer.



PARTS LIST:

- D51105131 15K ohm resistor
- D51101706 470 ohm resistor
- D51001075 1.6K ohm resistor
- D51101721 270 ohm resistor
- D51101722 56 ohm resistor
- D51101798 7.5K ohm resistor

K2000 Modification List

Changes for the K2000

Engine PCB

- **U23 should be a Gold Star 74HCU04 versus Motorola brand.** U23 is used for rounding the main processor clock for FCC compliance. When the Motorola IC heats up, the clock signal shrinks causing the frequency to change. The Gold Star brand fixes this problem.
- **Engine version 3.18 or higher is recommended.** Earlier versions will not support both ROM blocks and may cause other difficulties.
- Pseudo version 4 and GODOT version 5 are highly recommended.
- **JANIS ONLY:** Should have a 1N4148 diode across R4 with the cathode away from C11. A 1K 1/8W 5% resistor between RP1-8 and RP1-16 should also be present.

Audio PCB

- A FET PROTECTION PCB should be attached. This protects the output FETs from blowing.
- U62 should be an LF351 versus a KF351. The KF351 IC has been found to go into oscillation.
- C202 (the 22,000 micro Farad, 16 volt capacitor) should not be a SAMWHA with a date code of 9504. The date is printed in black and may be hard to read (electrolyte leaks and/or dries up on this batch of caps. To check ripple on C202, use an oscilloscope to look at TP17 for a saw-tooth waveform no more than 1 Volt Peak to Peak.
- **1. Two 1N4148 diodes should be placed on U9. The first one: place the anode on pin 6 and the cathode on pin 1. The second one: place the anode on pin 10 and the cathode on pin 16. This mod dampens the pop that sometimes occurs on powering on the unit.**
2. Replacing R178 with a 4.7K ohm resistor also helps in suppressing this pop.
- **Keyboard version only.** RP1 and RP2 SIPS should be 22-ohm resistor packs. Changing these fixes the death-chord problem where hitting every 8th note at the same time causing the notes to repeat or "ring" and other unwanted effects.
- **Keyboard version only.** If audio board is Rev. B then the contrast adjust mod should be done.
- **On VX models,** check to make sure the battery back-up line (C15) is attached to pin 1 of P-RAM (pin 1 is the square pad where cable plugs in – this can be seen on bottom of P-RAM assembly).
- **Check gal on P-RAM,** should be "QJ" NOT "LJ".

PARTS LIST:

D51001090 – Resistor 4.7K OHM
D Resistor 1K ohm
D5300801 – Diode, 1N4148
DFETK - FET PCB K2000
DFETKR - FET PCB K2000R

D62005802 – IC, Digital GAL GODOT 20V8-15LP V5
D62005702 – IC, Digital GAL Pseudo IC V4
D64010201 – IC, Linear LF351N DIP
D52005202 – Capacitor 22,000mf/16V

K2500 Modification List

CHANGES FOR THE K2500

Engine PCB:

- U10 should be labeled DACCTLV4.
- U13 should be labeled SMCTLV8.
- The SCSI Mod should be performed. (See K2500 Service Manual)
- L2 must be Installed for **Racks**, This is the 32Mhz Clock for the Effects.
- L2 must be removed for **Keyboards**, (For FCC Compliance) clock signal is on the Audio PCB.
- If L13 is a T-Filter, replace with a 22-Ohm Resistor.
- If L4 is a T-Filter, replace with a 22-Ohm Resistor.

Engine Daughter PCB:

- D2 is a 1N270 (Glass Diode) this is for the reset Line.
- R55 Must be removed on **REV A thru REV E boards only**, not on Rev F.
- U1 should be a 340CTLV9.

Rack Version Audio PCB:

- The program RAM Modification must be done (See K2500 Service Manual).
- R178 needs to be a 4.7K Ohm resistor.

Keyboard Version Audio PCB:

- Replace VR1 with a 78L05.
- U13 needs to be a LF351 not a KF351.
- U2 Kscan version needs to be V3.20 or higher to work right for OS 2.52 or higher.

Keyboard Version Power Supply PCB:

- Replace R9 with a 4.7K Ohm resistor.
- The rubber pads on VR3 & VR5 need to be replaced with Mica Pads.
- U1 Needs to be a LF351 not a KF351.

PARTS LIST:

D61017032-2 – U13 Loc., IC DIGITAL, PALSMCTLV8
D61017032-3 – U10 Loc., IC DIGITAL, PALDACTL V4
D61017032-4 – U1 Loc., IC DIGITAL, PAL340CTLV9
D51001040 – L13 & L4 Loc., Resistor, 22 OHM 1/4W 1%

D51001090 – R178 & R9 Loc., Resistor, 4700 Ohm 1/8W 5%
D64001301 – VR1 Loc., IC, Linear LM78L05ACZ +5 100MA 5% TO-92
D64010201 – U13 Loc., IC, Linear LF351N DIP
D53000401 – D2 Loc., Diode, 1N270
DRMRWRKPCB – U61 Loc., Ram Rework PCB

K2600 Modification List

CHANGES FOR THE K2600

Engine Mother PCB:

- A thin trace going to J814 pin 8 on the component side is susceptible to breakage at the butt joint between the narrow line and large power-carrying pad. To correct this, add a thin rework wire from J814 pin 8 to R149 (the side that is not silk screened R149). R149 is located next to the only tact switch on this board. This problem can cause a "Blue screen"

Keyboard Version Power Supply PCB:

- Many first production keyboards would randomly re-initialize on power up. To correct this problem, add a 1N4001 axial lead diode on the solder side of the board. Attach the Cathode to J101 pin 1 and the Anode to D2's Anode.

Keyboard and Rack Power Supply PCB:

- C6 should be a 100uF, 16V or 25V capacitor.

DSP PCB:

- Make sure U1, U7, and U34 are 7Z04

PARTS LIST:

D53000701 – Diode, 1N4001
D61000913 – 7Z04
D52002401 – Capacitor, 100uf, 16V

Modifications (HOME)

The documents in the list below are needed modifications for Kurzweil home products. If a unit is turned into your service center it is really important to do these modifications while the unit is open on the bench.

Mark 5 Modification List	120A
Mark 10/12 Audio (Old Style) Modification List	120B
Mark 10/12 Audio (New Style) Modification List	120C
Mark 12 Modification List	120D
Mark 12i Engine Modification List	120E

Mark 5 Modification List

Changes for the Mark 5 Audio PCB (New Style Only):

Problem: a moderate thump in the woofers will occur immediately when power is turned on.

Diagnosis: capacitor in mute circuit to suppress snap in tweeters when the engine software unmutes the amplifiers creates this thump as a side effect. Is only noticeable in Mark-5 application.

Change:

1. Remove C103.
2. Prepare a 39K 1/8W 5% axial resistor in parallel with a 1N4148 diode.
3. Connect the anode end of the resistor-diode combination to the + terminal of C103.
4. Re-insert the R-C-D combination back into the C103 holes as follows:
 - a. The free end of resistor-diode combination into + hole
 - b. The (-) terminal of C103 into the (-) hole.

PARTS LIST:

D53000801 Diode 1N4148

D51101112 Resistor 39 Ohm 1/8W 5%

Mark 10 and 12 Audio PCB (Old Style) Modification List

Changes for the Mark 10 and 12 AUDIO PCB (OLD STYLE ONLY)

Symptom: If the woofer amplifier has a large DC output voltage (approx. 0.60 volts) then this mod should be done.

Diagnostic: When speaker EQ component values were determined for the new knockdown enclosure, the values were selected without regard for the woofer amplifier's bias current. R58 and R67 thus increased from 59.0K to 205K which had the effect of quadrupling the typical DC level from 0.15 volts to 0.60 volts

- Change:**
- a. R56 & R65 from 3.40K to 750.0 ohms 1%.
 - b. R57 & R66 from 3.7K to 825 Ohm 1%.
 - c. R58 & 67 from 205K to 45.3K 1%.
 - d. C57 & 63 from 0.22uF to 1.0uF 5%.

Part List:

- D – Resistor 750 Ohm
- D – Resistor 825 Ohm Resistor
- D – 45.3K Ohm Resistor
- D – 1.0uF Capacitor

MK10/12 Audio PCB (New Style) Modification List

CHANGES FOR THE MK10/12 AUDIO PCB (NEW STYLE ONLY)

On all versions of the (new style) audio board, C30 and C31 should be removed.

The Mark-12i spec calls for increased Line Out level. This ECO provides approximately twice the Line Out level.

CHANGE: 1. Delete R36 from board and BOM.
 2. Delete R37 from board and BOM.

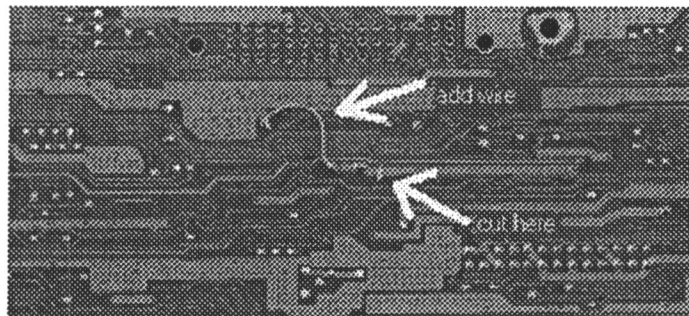
PARTS LIST:

Mark 12 Modification List

CHANGES FOR THE Mark 12 and 152

ENGINE:

- Popping noises have been heard on Mark 12 engine boards that have Lisa IC with a date code of 97 or later on them. To determine the date code, look at the Lisa VLSI. The first two digits on the first line under the logo is the year it was made. If 97 or higher and there is not a lot of wires attaching the pads of L14 to a very small IC then it should be sent to YCA for modification.
- On Rev B boards, C59 and C63 should .018uF (183) 5% poly and C62 and C66 should be 6800pF (682) 5% poly. If not then the high frequency response in the 15-20KHz region will be 2db lower than intended producing a muffled sound.
- Replace U26 with a 74L139.
- Snapping noises or loss of audio can occur on all Rev boards. Installing a 0.1uF ceramic capacitor at C126 (below Lisa U34) corrects this problem.
- On all Rev B boards, install a 10K Ohm resistor between pin 130 of U17 and the closest pin of C134 to prevent intermittent power up problems.
- On Rev B boards, a 120Hz and 240Hz hum may be present in the line out and woofer outputs. To correct this, on the solder side of the board, cut the wide trace connecting R176 and R200 to analog ground. Then add a small wire from the ground ends of R176 and R200 to the ground lead of Y2.



PARTS LIST:

- | | |
|---|--------------|
| D | - .018uF cap |
| D | - 6800pF cap |
| D | - 0.1uF cap |

MK12i Engine Modification List

CHANGES FOR THE MK12i/152i ENGINE

The Tianma LCD backlight is not as efficient as the Samsung backlight and so requires more current to increase brightness.

CHANGE: R176 and R200 to 15 ohms 1/4 or 1/2 watt 5%.

PARTS LIST:

D – 15 Ohm Resistor

PRO Product Troubleshooting

General

Please follow these common rules for troubleshooting. Many people get caught up in the pressures of the day and overlook the simple things.

- a. Visually inspect for damage (e.g. UPS damage – File a claim if necessary). Visual inspections reveal many problems.
- b. Install/reinstall latest OS and Objects and give the unit a 'Hard Reset'. This solves a lot of problems quickly and easily. (list hard reset/diagnostics procedures).
- c. Make sure all cables are connected properly and fit snugly.
- d. Check for damaged or pinched cables.
- e. Check for any modifications released by Kurzweil (See KTD 110 Series).

When trying to narrow a problem down to a specific board that has intermittent problems:

- a. Remove options one at a time and retest after each option is removed.
- b. Check all supply voltages on the Power Supply board (less than 1v p-p AC on regulators)
- c. Check for correct clock frequencies on crystal oscillators (designated with a 'Y'#)
- d. Try using a heat gun and freeze spray on the suspected areas to check for thermal sensitivity.
- e. Re-solder legs of suspected components or connectors.

Common problems:

K2600

Note: To 'check U#', means to measure supply line voltages and clock signals for correct levels. Also, measure data lines with an oscilloscope to make sure a proper peak-to-peak voltage level is present. A schematic set is vital for troubleshooting the following:

(Continued)

K2600 Common Problems (continued)

Blue Screen: Check supplies and crystal signals on U1, U4 & U5 on the Engine board. Remove jumper pin on JP803 of the Engine if no Digital I/O option is installed. Check the Engine board for continuity between J814 pin 8 & R149 (opposite side of designator silkscreen) R149 is a small surface-mount resistor located on the component side by the DAC connector. Check Y1 crystal on Engine board. Check buffers U8, U12, U34 - U39 on the Engine board. These buffers are connected to U3 microprocessor. Check the 'Contrast Adjustment' pot on the Scanner board as well as U10 on the Engine board.

Freezes on 'Running System...' or Fails VLSI/ZRAM test in diagnostics: Check Y1 crystal on the DSP board and make sure this signal is reaching appropriate ICs. Make sure that U1, U7 & U34 on the DSP board are labeled 7z04. Check buffers U8, U12, U34 - U39 on the Engine board. These buffers are connected to U3 microprocessor – Often will display a 'Bus Error' code when running the VLSI/ZRAM test in diagnostics.

Freezes on 'Waking up Scanner': Check U3, U4 & Y1 on the Scanner board.

Freezes on 'V.A.S.T.' sign wave on boot-up, OR Boots up normally but has no sound, OR Fails Sound ROM, Sound RAM or VLSI tests in diagnostics: Check clock signals to U17 & U18 (Janis ICs), U21 - U24, U28, U32 & U33 (Sound ROM) on Engine board.

Intermittent audio output: Make sure that U1, U7 & U34 on the DSP board are labeled 7z04.

Different clicks and pops on each effect or consistent 'thumping' noise in all outputs: Clean contacts and re-flow solder on Audio board to Engine board cable connector. Check lines to U25 - U28 (effects RAM) on DSP board. Check U8, U10, U11 & U13 (LISA ICs) on DSP board.

Full volume static distortion after 10-15 minutes of warm-up then locks-up: Check U2, U3, U5 & U6 (Hobbes ICs) on DSP board. May be heat sensitive.

Distortion or no audio in right channel: Check U2 & U3 input pins 2 & 3 and output pins 12 & 13 on Audio board.

Distortion or no audio in left channel: Check U12 & U13 input pins 2 & 3 and output pins 12 & 13 on Audio board.

Locks up on "Please Wait..." when trying to load from floppy disk: Check C41, C43 and U9 (Floppy Controller) on Engine board.

Locks up on "Please Wait..." when trying to load from SCSI: Check U13, U14 (SCSI controller) and U15 (SCSI terminator) on the Engine board.

Boots up with random white pixels in the display: Check Y1 crystal (19.96MHz) on the DSP board. Check U10 (Data Buffer) on the Engine board.

(Continued)

K2600 Common Problems (continued)

Unit boots up with 3 flashes (Battery Low indication): Make sure U4 (Keyscanner IC) on the Scanner board is v5.04

Keyboard velocity problems: Check J703 on the Scanner board for proper jumper setting. Check U5 & U6 on Scanner board.

Fails Sound Ram test in diagnostics: Check for proper voltage setting on Engine board 'Power Jumper'

Note: this "common problems" list will grow with time. This is just a start. Send us your ideas and we may add them in. Send your ideas to email address: newsletter@yca.tzo.com

K2000 Setups with Definitions

Rev. D 10-21-02

The following information summarizes the various setup options for the K2000 series. The "setups" themselves are ICs that are located at U2 for the Lo, and U5 for the high on the Engine board. These setup EPROM work together with the ROM block PCBs.

1. K2000 with no ROM blocks:

V1.3 setups are used when only OS v2.0 is used with no ROM options installed).

- V1.3 set-up EPROMs are Standard K2000 setups
- V1.3 retains original first 200 sounds of the K2000
- V1.3 does not offer support for Orchestral or Contemporary ROM blocks.

2. K2000 with ROM blocks (OS v3.87 is the current operating system needed to operate with ROMs).

ROM 1 -Retains the original first 200 sounds of the K2000
 -Supports Orchestral ROM ONLY
 -Adds Patches 900-999

ROM 2 - Retains the original first 200 sounds of the K2000
 - Supports Contemporary ROM ONLY
 - Adds Patches 800-899

Set up EPROMs needed:

ROM F setups - Retains the original first 200 sounds of the K2000
 - Supports the Orchestral and/or Contemporary ROM blocks
 - Adds Patches 800-999

VP setups - Changes the first 200 sounds to be the same as the K2500 series

VX setups - Changes the first 200 sounds to be the same as the K2500 series
 - Supports the Orchestral and/or Contemporary ROM blocks
 - Adds Patches 600-999

Attention!!!!!!!: Units that have setups that support ROM blocks that don't have the actual ROM blocks installed will generate patches between 600 and 999 that may not sound correctly. You must have the ROM block hardware installed to access these patches.

Setup EPROM Part Numbers

VP setups = Lo- D82804332
 Hi- D82804333

ROM1 setups = Lo- D82804320
 Hi- D82804321

VX setups = Lo- D82804330
 Hi- D82804331

ROM2 setups = Lo- D82804322
 Hi- D82804323

v1.3 setups = Lo- D82804312
 Hi- D82804311

ROM F setups = Lo- D82804324
 Hi- D82804325

HOME Product Troubleshooting

General

Please follow these common rules for troubleshooting. Many people get caught up in the pressures of the day and overlook the simple things.

- a. Visually inspect for damage. (e.g. UPS damage – File a claim if necessary)
Visual inspections reveal many problems.
- b. Install/reinstall latest OS and Objects and give the unit a 'Hard Reset'. This solves a lot of problems quickly and easily. (list hard reset/diagnostics procedures).
- c. Make sure all cables are connected properly and fit snugly.
- d. Check for damaged or pinched cables.
- e. Check for any modifications released by Kurzweil (See KTD 120 Series).

When trying to narrow a problem down to a specific board that has intermittent problems:

- a. Remove options one at a time and retest after each option is removed.
- b. Check all supply voltages on the Power Supply board (less than 1v p-p AC on regulators)
- c. Check for correct clock frequencies on crystal oscillators (designated with a 'Y'#)
- d. Try using a heat gun and freeze spray on the suspected areas to check for thermal sensitivity.
- e. Re-solder legs of suspected components or connectors.

Common Problems:

Mark 10

Check Voltages. DC and AC. It is possible to read +5Volts DC and also have AC present. The +8V unregulated should have less than 1V of ripple. Check C40 on the Engine PCB. Some of them leak electrolyte.

(Continued)

Home Product Speaker Part Numbers

<u>AND Number</u>	<u>Description</u>	
D44010100	Speaker, Mid-Range (Bottom) 6.5" Round 8 Ohm	Mark 150/152
D44010000	Speaker, Mid-Range (Top) 5"	Mark 150/152
D44000804	Speaker, Tweeter	RG-200
D44011211	Speaker, Tweeter 1" Rnd	Mark: 5WN/10WN/12
D44000815	Speaker, Tweeter 1" (Oval/Rec Brkt)	Mark: 6 / 8 / 152
D44011201	Speaker, Tweeter 1" Sq	Plastic Mark 5 / 10 and Mark 110N / 150 / 152
D44000803	Speaker, Tweeter 2	RG100
D440116001	Speaker, Tweeter Dome, Polymer 10mm	Mark 3
D44000802	Speaker, Woofer 5 25W	
D44000805	Speaker, Woofer 5" 40W	RG200 / LE-1 / Mark 5WN / MK6
D44010104	Speaker, Woofer 12" (Bottom)	Mark 150 / 152
D44040160	Speaker, Woofer 6.25" 6 Ohm	Mark 8
D44011101	Speaker, Woofer 6.5" 7 Ohm(Sq)	Mark: 5 (Plastic) / 10 (All) / 12 / 110 / 112

POSSIBLE HARD RESET PROCEDURES FOR OBSOLETE UNITS

EG20	Hold any one of the 5 buttons left of the LCD and turn the unit on.
EP500	Hold the " Chorus E Piano" button and turn unit on OR, hold the "Bright Piano" button and turn the unit on.
MK2	No hard reset procedure.
MK3 MK4 EGP	Hold the "Chorus and Tremolo" buttons and turn unit on.
K1K	Hold buttons "A" and "B" and turn the unit on.
K1KR K1KRPX	Hold buttons "No" and "Yes" and turn the unit on.
RPO1 PRO2 PRO3	Hold buttons "A" and "B" and turn the unit on.

Kurzweil K2500 Common Failures

PROBLEM

POSSIBLE FIX

CRACKS AND POPS/NO EFFECTS/NO SOUND

L13 SHOULD BE A 22OHM RESISTOR

INTERMITTENT DISTORTION ON SAMPLE RAM

**REPLACE SMCTL TO V8/ CHECK
SIMMS**

SLIGHT POPS IN AUDIO

CHANGE DACCTLV4 CHIP

BLANK SCREEN/ UNIT NOT WORKING

REPLACE 340CTLV9

SCREEN GOES WHITE (WITH CC PEDAL)

Q1 BACKWARD ON DIGITAL IO

DISTORTION IN ROM 700-900

**DO MOD TO RMB-P2/
RESEAT RMB-P2**

**HIGH PITCHED WHINE ON SAMPLE WITH
WITH KDFX INSTALLED**

JUMPER GJ1 ON SAMPLING OPTION

DISTORTION WHEN ROM BLOCKS ARE ADDED

L4 SHOULD BE A 22OHM RESISTOR

REV B

K2500 OPERATING SYSTEM & OBJECTS

WITHOUT KDFX:

OS VERSION: 3.02

WITHOUT SAMPLING OBJECT VER:

- 3.02 NO ROM OPTIONS
- 3.12 PIANO (RMB-P2)
- 3.22 PIANO + ROM-1
- 3.32 PIANO + ROM-2
- 3.42 PIANO + ROM-1 + ROM-2 (ALL ROMS)

WITH SAMPLING OBJECT VER:

- 3.50 NO ROM OPTIONS
- 3.60 PIANO (RMB-P2)
- 3.70 PIANO + ROM-1
- 3.80 PIANO + ROM-2
- 3.90 PIANO + ROM-1 + ROM-2

WITH KDFX

OS VERSION: 5.00

BASE OBJECT VER: 5.00

OPTION OBJECT VER: 4.03

- OBJKB500.K25 BASE ROM (MANDATORY)
- OBJKP403.K25 PIANO (RMB-P2)
- OBJKO403.K25 ROM-1
- OBJKC403.K25 ROM-2
- OBJKL403.K25 LIVE MODE

The K2500 ENGINE MOTHER PCB'S with the 72 pin simm sockets get thier digital +5volts directly from the power supply.

For keyboards with the old style power supply pcb you will have to add two wires.

attach the +5Vdc (red) lead to the Anode of D7

attach the ground (black) lead to TP101

For racks:

attach the +5Vdc (red) lead to TP16

attach the ground (black) lead to PIN 7 of U58

These wires get attached to J920 on the engine mother pcb.

attach the +5Vdc (red) lead to the outside edge post. (square pad)

attach the ground (black) lead to the inside post. (round pad)

SERVICE CENTER INFORMATION

- 1. WHEN ORDERING PARTS PLEASE HAVE PURCHASE ORDER #'S AND THE SERIAL NUMBER OF THE UNIT YOU ARE CALLING FOR.**
 - a. Serial number breakdown on most 12 digit serial numbers : first 2 digits – type of unit:
second 2 digits – year of manufacture: third 2 digits – month of manufacture:
Pro unit – remaining numbers are for production control:
Home units – fourth 2 digits indicate color – remaining digits are production control numbers.
ALL PARTS ARE CHARGABLE – IF UNDER WARRANTY PLEASE TELL THE PARTS PERSON WHEN ORDERING.
 - b. Warranty parts are NET60 others are NET45
 1. Net 60 – turn in claim or pay parts in 60 days
 2. Net 45 – pay parts promptly.
 - c. Credit to be issued to invoice when warranty claim received
 1. Unpaid invoices receive full credit
 2. Paid invoices are paid by check or like parts sent.
 3. Like parts sent when own stock is used (not purchased from Kurzweil)
- 2. TO HELP IN QUALITY CONTROL – PLEASE EXPLAIN IN DETAIL ALL SOLDER ACTIONS ON CIRCUIT BOARDS ON THE WARRANTY CLAIMS**
- 3. FOR PROPER TRACKING PLEASE BE SURE THAT ALL WARRANTY CLAIMS & PARTS ORDERS HAVE YOUR PURCHASE ORDER #'S**
- 4. ALL PAPER WORK SENT TO KURZWEIL MUST BE COMPLETE**
 - a. Warranty is determined by date of purchase – required
 - b. Take the serial number of piano from unit not outside paperwork (i.e. invoices. Etc.)
 - c. Customer information required on claim forms to update warranty records. (i.e. name-address-etc)
- 5. ALL PARTS BEING RETURNED MUST HAVE A RETURN AUTHORIZATION NUMBER – NO NUMBER DO NOT RETURN. IF YOU HAVE AN RA# YOU WILL BE PAID FOR RETURN FREIGHT. (PLEASE NOTE THIS ON WARRANTY CLAIM)**
- 6. ALL ACCOUNTS IN ARREARS FOR MORE THAN 60 DAYS – WARRANTY WILL NOT BE PAID BY CHECK – CREDIT WILL BE GIVEN TO ACCOUNT.**
- 7. ALL FREIGHT CHARGES ABOVE GROUND COST ARE THE CUSTOMERS LIABILITY.**
 - a. Overnight – non warranty
 - b. C.O.D. charges – non warranty
 - c. Shipping of units to & from service center – non-warranty.
- 8. WARRANTY COVERS MANUFACTURING DEFECTS ONLY**
 - a. No damage
 - b. No obvious abuse
 1. Spills
 2. Broken keys
 3. More than one replacement of key weight assembly
 - c. No Software updates on units out of warranty – customer maintenance
- 9. PLEASE DO NOT TELL YOUR CUSTOMERS TO CALL KURZWEIL DIRECTLY – THEY ARE YOUR CUSTOMERS NOT OURS – WE WILL HAVE NO TIME FOR YOU IF WE TALK TO THEM**

ACKNOWLEDGEMENTS



Thanks to Sweetwater Sound Service Department for great assistance during our recent time of "growth." They've really been using fax in orders and other Kurzweil Service Package methods. This has really helped out!

Rod Marcote at Northeast Organ Repair in Florida has gone out of his way to help service an area that is sparsely populated with Kurzweils.

Thanks to David Lundy at DESSCO for his great feedback in putting the service package together!

There's a lot more we could mention and will in upcoming issues. Especially to those that make Kurzweil look OK in difficult circumstances.



WANNA CALL BACK?

If you leave a phone message for us and need us to call back, please tell us in your message:

1. Your name
2. Your YCA account number
3. Your phone number with area code
4. Your phone extension #
5. Your need

We get phone calls that people forget to give the minimum info for us to know how to call (no name, number, company).

CHANGING STUFF? For changes of address, phone or fax number, email or status of service please contact us receipt@yca.tzo.com.

Kurzweil Service News

ΣΟΛΩΜΕ 1, ΙΣΟΥΕ 1

9υλν 2002

**ATTENTION DEALERS!!!!!!
ATTENTION TECHS!!!!!!
ATTENTION ONE and ALL!!!!**

This is issue # 1 of "KURZWEIL SERVICE NEWS." In this newsletter, the Young Chang America, Kurzweil Service Department will address service and technical issues to provide more continuity between service centers, dealers and us concerning service problems, and technical issues. This newsletter is intended to reinforce our commitment to our administrative and technical tools outlined in the Kurzweil Service Package we published and sent to dealers and service centers in January 2002.

Shortly, we will be mailing out additions or changes to the service package and we ask that you make the changes to keep your service package up to date.

**MITA Convention in July? YES!
We'll be there July 23rd and 24th and hope to meet some of you. We'll have our head technician and parts coordinator there.**

Subliminal Message: Read all of this newsletter... Read all of this newsletter... Read all of this...

Man, I wish they'd all read the Kurzweil Service Package...

Hey! Let's talk! You know... communicate?

COMMUNICATION is a difficult thing to maintain and we are trying hard to get better here. That's why we sent out the Kurzweil Service Package in January. There's a lot of folks out there that don't know about it for some reason although we sent one out to every dealer and every service center. Things get lost and if you need one - just email pamela_woods@yca.tzo.com.

Want a copy for your computer? We'll send you a ZIP file by email with a PDF copy of the service package. The table of contents has hyperlinks that make it easy to move around in the document. Also included are MS Word docs that you can print out for your use when you need a form. To save yourself some time you can fill in the header of the forms and save the file for later. Thanks to all of you that have started using the Kurzweil Service Package!

PARTS PLANET



FORMS, FORMS and more FORMS

Faxing in forms is really working to speed things up! Thanks for helping us out. It really makes a difference in keeping track of things and it eliminates a few calls on the phone for everyone.

USE our form KSD 4B "Kurzweil Parts Order Form" to fax or email general parts orders in (not PCBs).

Those darn serials numbers:

Ever wonder why we need serial numbers? They provide a ton of info like the date it was made, the color, production changes for parts, when we sold it, etc. We have enclosed a cheat sheet for your use. Please put in the service package at the appropriate page number.

Literature: We've received some complaints about charging for the freight on literature, lately. We're trying to keep things affordable and we do send the literature at no charge. We hope you can understand our need to do this. If you are getting literature you don't need let us know! Contact person for literature is: connie_meallister@yca.tzo.com

Returns: We sent out a letter dated April 3, 2002 about returns. We need your returns back to us within 60 days! This is to keep accounts cleaned up and accurate. Thanks for your assistance!

TECH & SERVICE TIPS

Hard Resets work magic, sometimes. Its amazing how many don't know how. They're in the service package...



Need HARD RESET procedures? Look in the Kurzweil Service Package! The procedures are in the back of the book. This has come in real handy for a few techs out there. It saved a lot of time and money in a few cases.

Mark 3 audio problems? Make sure the power adapter is 13.5 volts (YCA part # D52001005). Some went out with a 15 volt adapter and it causes lots of audio symptoms. Look in the service package in the back for a list of adapters.

Sending in items for repair and return or evaluation? Please make sure you get a service return number. This is a work order number that you can call and track the status of the job. Contact person for our service shop is cynthia_sieler@yca.tzo.com. Use form KSD 8b to fax or email a request for repair.

USE our form KSD 6D to order "Kurzweil Board Order Request" to fax or email PCB orders to us.

USE our form KSD 7B "Request for Return Authorization" to request an RA for a Kurzweil product for warranty reasons.



WARRANTY NOTES

Please read the new warranty forms that should arrive in your mailbox soon and add them to your service package.

One of the new items is a **Store Stock Warranty policy** that we have instituted. This is very important for dealers and service centers to read!

Have you noticed? We have changed our automatic authorization for warranty repair to 3 hours! No need for you to get prior approval for up to 3 hours.

NEW PRODUCT UPDATES:

ME-1 We've started shipping the Micro Ensemble and we have great hopes for it. We had to make a modification on the first 50 that came in and it held things up a little but we're getting them out now.

PCR-1 This new PC2 Orchestral sound and GM option has been long awaited for and we're trying to get them into everyone's hands as quickly as possible. We should have enough to go around soon – so hang in there!

KSP8 Our new effects processor is making headway and we're starting to see the options come in and ship out. The software on the KSP8 can be loaded by MIDI and is downloadable at our website. ALSO, you can download to a computer and use a Smart Media Card reader to transfer the information

in a much more efficient way. Encourage KSP8 buyers to get a Smart Media Card reader – they are fairly inexpensive.

SERVICE MANAGER DESK



It can be very difficult to get a hold of me and my voicemail is OVER loaded. Please contact the appropriate coordinator listed below by category to solve your problems. They are great and getting better all the time!

Parts and Literature (not PCBs)

connie_mcallister@yca.tzo.com or ext 111

Repair and Return, PCB orders

cynthia_sieler@yca.tzo.com or ext 103

Warranty, small parts returns

pamela_woods@yca.tzo.com or ext 106

Hardware Tech Support

K2000, PC88 and PC2

Ray_Heimbecker@yca.tzo.com or ext 135

K2500, K2600 and SP

tony_vankirk@yca.tzo.com or ext 138

Mark, RG Series

duane_garvin@yca.tzo.com or ext 104

Operational Support

david_fox@ycrdi.com or (718) 684-1345

jean_bellefeuille@yca.tzo.com or ext 237



Ideas for training articles? Any suggestions you have to improve this newsletter? Want to publish a technical tip? Contact us at receipt@yca.tzo.com - make sure the subject says what it's for.

KURZWEIL Service News

Winter 2002

Volume 1, Issue 2

Special Double Issue!!

We had so much to tell
you we made a special
double issue for YOU!

In This Issue

Tech Tips
Manager's Desk
Parts Planet
Warranty Notes
Super Service Centers

Special Features!

Guest Tech Tips
Shipping Tips

Option Blow Out Sale!

See page 6 for details

*Please submit request and/or sug-
gestions for this publication to the
editor by email.*

Newsletter@yca.tzo.com



Kurzweil Rocks

by Emmy

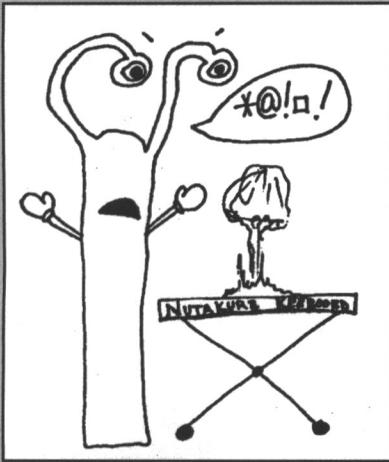
A Flood of End- users!

Please! We need your help to eliminate some calls from end-users. They call us directly (often referred by service centers or dealers) asking about repairs and orders. We understand when customers are anxious about their repairs, but we end up telling the customers exactly what we would tell you minus the cost of the repairs. So, if you have an upset customer, it is to your benefit to call us yourself and make inquiries regarding repairs and orders.

Kurzweil presents at MITA

The Musical Instrument Technician's Association (MITA) held its annual training seminar last July, in Las Vegas. Two people from our team, Duane Garvin and Connie McAllister attended and shared information in two sessions. Connie discussed administrative procedures, and the benefits of using the Kurzweil Service Kit, (KSK) and Duane concentrated on home product audio principles. The feedback from attending technicians led us to believe the training was on target, and exactly what they needed. If you did not have the opportunity to attend and would like to request a copy of the training material, please send a request by email to: "newsletter@yca.tzo.com", please use MITA Information as the subject line. Or you can contact us by snail mail at: Kurzweil Newsletter Editor, PO BOX 99995, Lakewood, WA 98499.

At the Cantina...



Inspiration...

"The only difference between me and a madman is that I'm not mad." -- Salvador Dali

"Talent does what it can; genius does what it must." --Edward George Bulwer-Lytton

"Try not! Do, or do not. There is no try." --Yoda (Empire Strikes Back)

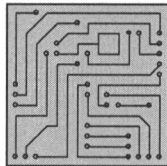


Later at the Cantina...

Return to Sender...

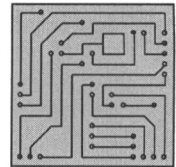
If you are returning parts to YCA Kurzweil, especially PCBs, here's a few tips that can help keep things simple, and organized:

- 1) Write the RA number in some kind of permanent ink on the outside of the box. This lets us know right away where to take the box when it arrives.
- 2) Include a copy of the paperwork that accompanied your original part order. There are things about the original order that may help us identify what to do with the returned part. For instance, the paperwork will have sales order number helping us to apply the credit for a returned PCB.
- 3) If you don't have an RA for a part, and you are considering sending it to us, please call and make sure that we need it back. We don't want to waste any of your time, by having you send things back that we don't need.
- 4) Of course, small tokens such as candy are rarely turned down in our warehouse!



Guest Tech Tips!

PEDALS!!



*The following **home product** tip was submitted by Dave Lundy of Dessco; Evansville, IN.*

Customers noticed to their dissatisfaction that the pedals on their home units will shift or become loose over time. I found that a small amount of petroleum jelly (applied where the pedal pivots on the plastic) makes a world of difference. In normal use, plastic dust makes its way under the contacts, causing improper function, and a tendency for a peddle to wobble. The lubrication minimizes both problems.

For many years now, I have added a wooden support to the pedal assemblies of units sold to schools and churches that play aggressively. It is 3/8" plywood cut to fit along the front and back edge of the pedal assembly. You can leave a space for the adjustment screw or simply remove it once the wood is installed. I paint the wood black, and mount it with 1 1/4" #6 wood screws along the front and back edge. After this modification I have rarely seen assemblies break, but the occasional pedal will still bend. I can only do SO much!

Operational Support Update

We would like to introduce you to our new Operations Technician, Denis Brunelle! He is our new east coast operational tech replacing David Fox (good-bye David - thanks for your many years of service!).

Frequently Asked Questions: If you have a customer with operational questions, you may refer them to our website: www.kurzweilmusicsystems.com. Click the button labeled "customer support" then click the button for FAQ. (FAQ is an acronym for Frequently Asked Questions.) The site is a great reference for people looking for all kinds of information, from learning to program settings on a PC88 to loading digital samples on a K2600. This is a great resource and is available to everyone on the internet.

KSP8 Information

If you handle KSP8, you will need to get a Smart Media Card reader. You can outfit yourself for under \$60 (we did, anyway). You will need this reader to perform updates on the KSP8s. Eventually, end-users will need to get one as well, as it is the best way to save and load information into the unit. *This may be an opportunity for you to make a sale as well.*

Notice: The ADAT/TDIF option for the KSP8 should have had a Smart Card in it to give some needed files, and to add some studio files. Please let us know if you didn't get one.

PC2 REVIEW

A common problem with the PC2 arises when you try to install the Polyphony Expansion Module (PCX-1). You need to install an additional ROM-1(PCR-1). If you have a unit that already has a PCR-1, and you would like to add a PCX-1, you still need to have a second PCR-1. The sound information on the ROM cards does not communicate between the engine board and PCX-1. Your keyboard may only play every other note during new orchestral patches if you forget the extra PCR-1. For smoother software updates, you can download software from our website, but getting it out of your computer can be difficult.

We've found that Microsoft Media Player works well to transfer your downloaded MIDI files to the PC2. Other methods for download are outlined in the "readme" file that comes with all downloadable files from the PC2 section of the Website.

In September, we realized that we had a bad combination file on the website creating havoc with the Polyphony Expansion Module (file name pc2pcomb300). A new healthy combo file has been posted on the website. It does have the same name as the old one. If your current file does not work, try getting a new one.

The software on our website is also more current than the software that comes in the upgrade kits. It is always best to install the most current software available because the newer versions of software come with BUG FIXES and NEW FEATURES!!!

Meet our Techs

Operational Support: the how-to-use-it gurus of Kurzweil products.

Jean Bellefeuille, contact him at 253-589-3200 ext 237.

Denis Brunelle, contact him at 781-684-1385.

Hardware Tech Support: the repair gurus at YCA. Call 253-589-3200.

Duane Garvin, is our Mark Unit and RG series tech. He does all of the home stuff. He can be contacted at duane_garvin@yca.tzo.com or by calling ext. 104

Ray Heimbecker handles K2000, PC88 and PC2 units. Contact him at: ray_heimbecker@yca.tzo.com or by dialing ext. 135

Tony Van Kirk, handles our K2500, K2600 and SP series. Contact him by email at: tony_vankirk@yca.tzo.com or by phoning ext. 138

Meet the Coordinators

Connie McAllister, is our Parts Coordinator, she handles all the parts orders and literature requests except for PCB's. Her email is: connie_mcallister@yca.tzo.com by phone she is at ext. 111

Cynthia Sieler is our Repair, Return, and PCB Coordinator. She moderates the incoming and outgoing of repairs, PCB orders, and she writes all of our Return Authorizations. If you need to contact her please email her at cynthia_sieler@yca.tzo.com or by phone at ext. 103

The Warranty Claims are managed by **Pam Woods**. Pam makes sure that claims are reimbursed, for both Young Chang and Kurzweil. If you have questions, you may contact her at pamela_woods@yca.tzo.com or ext. 106



Manager's Desk

A round of applause is due to all of you that have put the service kit to work. (Yes, I called it the service kit. We have a new product if you haven't heard - the KSP8. Our service package was dubbed the KSP, an acronym for Kurzweil Service Package. This double use of the acronym caused a few problems, so we changed it.) Your participation in faxing and emailing has begun to make a big difference in our daily affairs.

Also In the previous edition of our newsletter, we notified you to keep your eyes open for revisions to the Kurzweil Service Kit. I have to apologize for not getting those changes out, as promised. Please keep you eyes open, for a newsletter, and the newest version of the Service Kit in January!

Thank you,

David Watkins

Hardware Tech Tips...

Home Product

The Mark10's memory does not rely on a battery. Instead it has a one farad capacitor to retain its memory. After a week the cap may drain enough to cause the memory to loose some data. This could result in the LEDs flashing repeatedly, indefinitely. If this happens, you may have to go into diags and run test # 003. Hard Resets cure many problems! See Kurzweil Service Kit (KSK) for Hard Reset Procedures.

Notice: *remember when installing the Mark 110/ 112/ V110 legs – there are two sizes of bolts. The back bolts are longer than the front bolts. If you use the back bolts for the front, you WILL ruin the (very expensive) keyboard assembly! **Please make sure your staff is aware of this issue, to avoid unnecessary damage to a unit.***

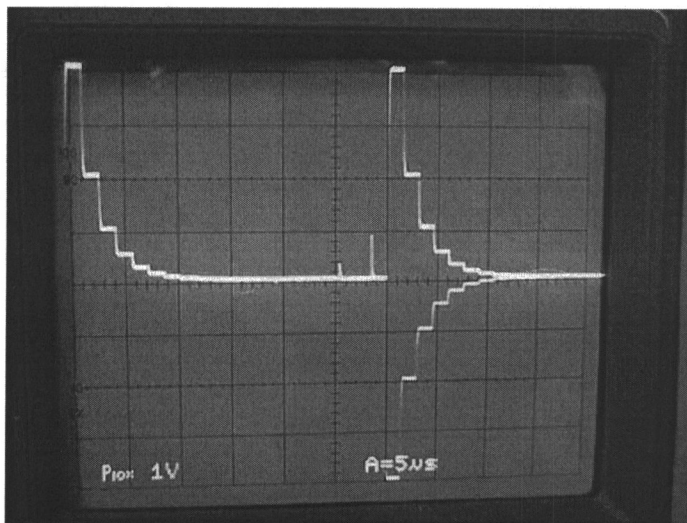
Pro Products

Hard Drive compatibility is an ongoing pain but we are actively comprising information for a list of compatible Hard Drive models. Hang in there, and we will try to have this in the new KSK to be mailed in January 2003!

K2000/K2500 Feature

Ever wonder how those darn K2000 effects work? Well, the waveform in the picture is what you should see at TP 6 or U11 pin 2 on the audio PCB. If your waveform doesn't look like this, it can be adjusted. R69 will adjust the gain, which should be 4V peak. R122 will make the waveform go either negative or positive. It should be adjusted so that the waveform shows both! There is a point where the waveform will be positive and have a "reflection" that goes negative. Also, the waveform should be stable when no notes are being played. This is a good place to look when dealing with effects problems. If the effects do not look like this and/or they won't stop moving, then the problem is most likely in the top half of drawing 11 or on drawing 12 of the K2000 Janis manual.

These effects tips work for the K2500 series as well, though the component designations may change. This procedure is on page 6-20 of the K2500 manual. Stay tuned for more cool stuff!



Weights falling out of keys? We mean 76 note semi-weighted keyboards where a cylindrical weight is in the keys. Call Connie at extension 111 or e-mail connie_mcallister@yca.tzo.com before taking action.

Parts Planet

Warranty vs. Non-Warranty Parts Orders

Please order your warranty and non-warranty parts separately. We understand this isn't always possible, however, we would appreciate your help keeping things organized.

In addition, please keep in mind that your voice mail messages generally will not be received until the next business day. You may request to have Connie paged, but only for emergencies or urgent orders, please.

Remember!! We ALWAYS ask for a serial number, it is vital to provide you with the correct part! So please remember to get the serial number.

For your notes we will close down our shipping and parts departments from **Wednesday December 25 until Friday January 3**, for inventory.

Important Notice:

Just a heads up from our local and national news.

This last month, the West Coast's shipping yards were all on lock-down because of the Longshoreman lock out. This lock out effectively set their work back by approximately six weeks. This is important because we receive our parts by boat from Korea. Meaning that if we have a container of parts on the dock, we may not receive them right away.

The shipyard employees were ordered back to work by the president, and are expected to work for an 80 day period, after which there is no definite answer as to what will happen if no agreement can be reached in negotiation.



NEED A CALL BACK?



If you leave a phone message for us and need us to call back, please tell us in your message:

1. Your name
2. Your YCA account number
3. Your phone number with area code
4. Your phone extension #
5. Your need

We get phone calls that people forget to give the minimum info for us to know how to call (no name, number, company).

CHANGING STUFF? For changes of address, phone or fax number, email or status of service please contact us at the appropriate department by fax:
Dealers: 253-983-8206
Service Centers: 253-584-5910
If you can't fax, please contact by e-mail to:
newsletter@yca.tzo.com

Tech-Room Trio

by: Emmy



CAN LITTLE-T'S LIFE GET ANY SAPPIER? WILL HIS UDDR BRND START A TECH ROOM FIRE? WILL THE MYSTERIOUS BIKER REVEAL HER TRUE IDENTITY?

JOIN US NEXT EDITION FOR THESE ANSWERS AND MORE WITH THE EXCITING ADVENTURES OF

TECH ROOM TRIO!!!

KURZWEIL



Our Commitment to Service

We know at Young Chang America, Kurzweil Music Systems, that service is among the keys to success in the US market today. Our commitment to you, the dealers and service centers, is to increase our effectiveness, improve our communication, and promote positive relationships to help you sell and service our products with confidence. This newsletter is hopefully providing you with needed information in an enjoyable format. It is intended to work hand-in-hand with the Kurzweil Service Kit (KSK) in providing information and effective administrative methods, and technical training. Please feel free to e-mail your thoughts about our performance and growth at newsletter@yca.tzo.com

Kurzweil Music Systems

9501 Lakewood Drive SW, Suite D
Lakewood, WA 98499

Warranty Reimbursement and Quality Report - Page 2

Please provide the following critical information with every warranty claim. It is for feedback to our factory and engineers for current model improvements and for future developments.

Describe the reported symptom:

Failed Assembly (Circle One):

Engine PCB / DSP PCB / Audio PCB / Scanner PCB / Connector I/O PCB
Control Panel PCB / Power Supply PCB / Power Adapter / Sound PCB
Pitch-Mod Device / LCD / Cabinet or Enclosure / Keyboard / Pedal / Software
Cable (Describe): _____

Failed Components (if replaced/repaired at service center VS. assembly swap):

Location on PCB: _____ (i.e., U10, R12)

Was the cause of the failure poor solder joints? (Circle one) YES NO

If yes, describe the poor solder joint: (Circle one)

Cold solder joint / No solder or too little solder / Solder bridge / Broken joint

Other
(describe): _____

If yes, describe the re-solder location: (Circle one) Surface Mount DIP

Comments /

Suggestions: _____

Kurzweil Parts Order Form

FAX: 253-584-5910

Contact Name	Account#
Company Name	PO #
Address1	Phone
Address2	Fax
City, State Zip	Email

Circle shipping preference: Ground 1-Day 2-Day 3-Day

Circle confirmation method: Email FAX Don't Verify

Note: confirmation is normally by the same method the request submitted in.

NOTE: You can track from UPS website using your zip code and the AND Music sales order number as the reference numbers required in the website.

Comments

Warranty? YES NO (Circle)			
Serial Number:		Date of Purchase:	
Model Number:			

Deleted: ¶

Part Number	Description	Qty	Price	Total
-------------	-------------	-----	-------	-------

Email parts orders to: parts@yca.tzo.com

Deleted: email

Internal Use Only – AND Sales Order Number: _____

KSK June 2003 (please discard all previous versions)

KSD 3B

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Board Order Request Form

(Kurzweil Music Systems Service Department)

Please, completely fill out this form.

FAX to: 253-584-5910

Contact Name		AND Account #:	
Company Name		PO #:	
Address 1		Phone #:	
Address 2		Fax #:	
City, State, ZIP		Email #:	

Model		Date of Purchase	
Unit Serial Number		PCB Serial Number	

Note: see KTD 1C and KTD 2C in the KSK for PCB descriptions and part numbers.

Description of needed PCB:

Part number needed PCB:

DETAILED DESCRIPTION OF MALFUNCTION

At the time a PCB is ordered under warranty, customer information must be provided upon request to verify warranty eligibility.

PLEASE SUBMIT THIS FORM VIA

Email: production@yca.tzo.com

Phone: (800) 874-2880 ext 103

KSK June 2003

(please discard all previous versions)

KSD 5B

REQUEST FOR REPAIR SERVICE**FAX To: 253-584-5910**

CONTACT NAME		ACCOUNT #	
DEALER NAME		PHONE #	
RETURN ADDRESS		FAX	
CITY, STATE		EMAIL	
ZIP CODE			

MODEL #		SERIAL #	
DATE OF PURCHASE		WARRANTY	

Describe the Malfunction (in detail):

SUBMIT THIS FORM VIA	
EMAIL: <u>production@yca.tzo.com</u>	

SHIPPING INFORMATION:	
PHONE 1-800-2880 ext. 103	ADDRESS 9501 LAKEWOOD DRIVE SW suite D LAKEWOOD, WA 98499